

**CONTINGENCY THEORY OF GROUP COMMUNICATION
EFFECTIVENESS IN KOREAN ORGANIZATIONS:
INFLUENCE OF FIT BETWEEN ORGANIZATIONAL
STRUCTURAL VARIABLES AND GROUP RELATIONAL
CLIMATE ON COMMUNICATION EFFECTIVENESS**

A Dissertation

by

WOON YOUNG CHO

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2005

Major Subject: Speech Communication

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Chair of Committee,	Marshall Scott Poole
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ABSTRACT

Contingency Theory of Group Communication Effectiveness

in Korean Organizations:

Influence of Fit between Organizational Structural Variables and Group

Relational Climate on Communication Effectiveness.

(August 2005)

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This study developed and tested a contingency model of group communication in Korean workgroups that posited that the communication effectiveness and group performance of workgroups is determined by the “fit” of communication practices with organization structure and group relational climate.

A contingency model incorporates three variables: contingency variables, response variables, and performance variables. Based on a review of the literature on Korean organizations and groups, the model incorporated two contingency variables: organizational structure and group relational climate. Organizational structure was indexed by the level of centralization and formalizations in the organization. Group relational climate was indexed by the level of closeness and group conformity among members. The response

variables, communication practices of Korean workgroups, was measured in terms of the frequency of formal and informal meetings held by the workgroups. Two types of performance were measured: communication effectiveness and performance level. The contingency model hypothesized that the level of communication effectiveness and group performance of a workgroup that engages in communication practices which fit the requirements of organizational structure and group relational climate will be higher than that of a group whose communication practices do not fit the requirements of organizational structure and group relational climate. It also hypothesized the communication effectiveness group performance would be lower in groups which faced conflicting contingencies than in groups that faced consistent contingencies.

A survey of 409 members of 84 workgroups in 37 Korean organizations was conducted. Results of this study supported the predictions of the contingency model. In particular, centralization, formalization, and closeness were significant contingency variables. The hypothesis regarding conflicting contingency was not supported. Implications of the study regarding the contingency theory, group communication and group effectiveness, and the nature of Korean groups and organizations are discussed.

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CHAPTER I

INTRODUCTION

BACKGROUND

Who am I? I'm a daughter of my parents, sister of my younger brother, a member of my church, a friend of my friends, and a student of the University. Without these groups I belong to, how can I possibly form and maintain my identity? Small groups are the most important link between society and the individuals belonging to society (1996; Cathcart, 1996; Palazzolo, 1981; Pavitt, 1994; Poole, 1996; Ridgeway, 1983). All individuals must join groups in order to accomplish their goals for their lives and to satisfy personal needs through interactions with others. When an individual joins a group, she or he learns, practices and exercises the life of the group through communication with other members.

According to Bales (1970), a small group is defined as

any number of persons engaged in interaction with one another in a single face-to-face meeting or series of such meetings, in which each member receives some impression or perception of each other member distinct enough so that he can, either at the time or in later questioning, give some reaction to each of the others as an individual person, even though it be only to recall that the other was present (p. 33).

A particularly important group, and the focus of this study is the work group.

According to Levine and Moreland (1991) a "work group" consists of three of

This dissertation follows the style and format of *Communication Research Reports*.

more persons who integrate regularly to perform a joint task, and whose behaviors and outcomes are interdependent” (p. 258).

Communication is the vital process that sustains groups’ identities and interactions and is instrumental in-group effectiveness. Ridgeway (1983) states that, “It is the immediate mechanism by which a group evolves a social culture structure and culture. And it is through communication that groups maintain their habitual patterns of behavior. In fact, communication is one of the most critical aspects of interaction among groups members, the way they influence each other’s behaviors and the way the group is brought to life” (p. 85). Through the process of communication, groups form, develop, and change.

The purpose of this study is to gain an understanding of group communication in Korean organizations and its relationship to group effectiveness. It posits a contingency model of factors external and internal to groups that influence communication interactions among group members and consequently determine the quality of communication effectiveness and group performance in Korean workgroups. It tests this model using data from a survey workgroups in a wide variety of Korean organizations. The results of this research will contribute to the literature on group communication and group performance. The study also sheds light on groups from a culture that differs in significant ways from the North American and European groups that have been the focus of most research on groups.

The remainder of this chapter is organized as follows: First it discuss the

effects of group's external and internal contexts on its communication and the corresponding functions of communication as a response to the demands of the group's context. Second, it considers the cultural context of this research: Korean organizations and the relatively lack of knowledge about group communication in Korea. Finally, it advances contingency theory as a way of studying the group as a system composed of contextual influences and communicative responses, and describes the contributions that developing and testing a contingency theory of group communication in Korean organization can make.

GROUP COMMUNICATION AND GROUP CONTEXTS

When we attempt to understand group communication activities, it is necessary to understand the context surrounding groups, since all communication activities are performed in and influenced by the contexts. In particular, a work group has distinctive characteristics as from other groups. Work groups within organizations are typically task oriented, have formal structures, and have members who are part of an interlocking network of organizational roles (Jablin, 1980). Thus, the nature of the communication patterns in a work group affects and is affected by the characteristics a group faces and how it evolves and changes over time (Ridgeway, 1983).

Thus, how communication in groups influences and is influenced by their external environment is a valuable question to ask in order to understand group communication interaction in general. That the environment or context of a

group plays a highly significant role in group process has been emphasized in numerous previous studies. Stohl and Putnam (1994) capture the emotional intensity, temporal fluctuation, and historical influence of group process. Case studies investigate how groups employ status and power to influence decision outcomes (Barge & Keyton, 1994; Berteotti & Seibold, 1994) and rely on context to coordinate in-group activities (Berteotti & Seibold, 1994). The cross-cultural and intercultural studies examine the influence of cultures on organizational communication (Martin, Hammer, & Bradford, 1994; Suzuki, 1997; Sypher, Applegate, & Sypher, 1985).

A second factor influencing group processes and communication activities is the quality of group membership. For instance, member' demography is a good predictor of general group processes (Haslett & Ruebush, 1999). Through group processes, members develop shared assumptions and norms for interpersonal relationships. Communication activities are bound to these assumptions and norms consequently.

Because of the interdependence of group and its context and interwoven dependencies among members, group communication must be analyzed as from a systematic perspective (Mabry, 1999; Ridgeway, 1983). In studying group communication, understanding contextual factors surrounding groups is critical to determine the quality of their communication, since groups within organizations are embedded within larger collectivities (Jablin, 1980, as cited in Putnam, 1989).

In particular, to understand group communication within organizations, it is necessary to explore the unique characteristics of groups within organizations. Groups within organizations have complicated layers of contexts that interplay and mutually influence each other. Through this process, groups are continuously responding and changing to satisfy the demands of their contexts.

A number of studies have examined the relationships between environment and group performance (Devine, Clayton, Philips, Dunford, & Melner, 1999; Gladstein, 1984; Gouran & Hirokawa, 1986; Hackman & Morris, 1975; Jewell & Reitz, 1981; Levine & Moreland, 1991; McGrath & Hollingshead, 1994; Ridgeway, 1983; Saavedra, Earley, & Dyne, 1993; Shaw, 1981; Zack & McKenney, 1995).

Devine et. al (1999) argue, “While there has been increasing recognition in the past 30 years that work groups and teams cannot be understood independent of their context, the factors impacting team effectiveness are contingent on the team’s context” (p. 681). That is, to understand groups within organizations, it is necessary to understand the overall environment surrounding a group or team. During this process, “communication plays a role in integrating individuals into subgroups and joining subgroups into larger collectivities” (Putnam, 1989, p. 166).

Even though groups operate within the same environment the organization is embedded in, understanding groups may require a different approach than is typically used to understand the impacts of environments on organizations,

because groups have their own qualities that distinguish them from organizations.

An effective group approach for groups should allow us to examine external contextual factors that influence group communication interactions, as well as the influences of groups' own characteristics systematically. These factors do not exist in isolation. They interact, mutually influencing each other, and changing continuously. Through this process, groups change and readjust themselves to the surrounding system. Thus, understanding group communication requires us not only to examine each factor that possibly influences communication interactions, but also to identify the relationships among the factors.

Group Communication in Korea: An Unexplored Topic

Korea has a unique national culture. Hofstede(1980) categorizes Korea as collectivistic culture with high power distance and high uncertainty avoidance. Although Hofstede's dichotomous categories may be a rather deterministic approach to understanding the culture of Korea, his framework explains important aspects of Korean culture, including group orientation, respect for seniority and paternalistic leadership. These characteristics of Korean culture have resulted in unique organizational structures and management styles that differ from those in Western countries. It is said that close interpersonal relationships among co-workers, paternalistic relationships between superior and subordinates and focusing on group harmony are defining characteristics of

Korean organizations (Chen, 1995; Hyun, 2001; Ungson, Steers, & Park, 1997).

Based on this unique background, we would expect that Korean groups would differ from Western groups with respect to basic assumptions, communication practices, and qualities that contribute to communication effectiveness. For instance, we expect that informal meetings are very important channels to maintain close interpersonal relationships and foster teamwork in Korean organizations. Further, in Korean groups, we expect that it should be important that communication between supervisor and subordinates should go beyond just clear message delivery. Mutual understanding and support should also be important goals for communication (Chang, Lee, & Jung, 1997; Chen, 1995; Kim & Kim, 1989; Lee, 1989; Lee, 1989; Morden & Bowels, 1998).

Most previous relevant research on communication in Korean organizations examines it at the level of organizations. (Ha, 1998; Kim, 2002; Krone, 1993; Lee, 1990; LeResche, 1992; Yi, 1997; Yum, 1988) This research focuses on characteristics of Korean organizational structures, management styles (Chang & Chang, 1994; Chang et al., 1997; Chen, 1995; Hong, 1999; Kim & Kim, 1989; Lee, 1989; Lee, 1989; Morden & Bowels, 1998; Ungson et al., 1997) and interpersonal relationships including conflict management and communicative interactions (Chang & Chang, 1994; Ha, 1998; Kim, 2002; Kim, Sohn, & Wall, 1999; Kim, Wall, Sohn, & Kim, 1993; Krone, 1993; Lee, 1990; LeResche, 1992; Yi, 1997; Yum, 1988). Some implication regarding group communication practices and basic assumptions and expectations for communication in Korean

groups can be drawn from these studies indirectly, but none directly addresses the issues of group communication or group effectiveness in Korean organizations. In particular, the relationship between group contexts and communication interactions remains as an unexplored research area.

PURPOSE OF THE STUDY AND INTENDED CONTRIBUTIONS

In order to achieve an understanding of the impacts of internal and external contexts on Korean groups from a systematic perspective, this study will develop and test a contingency model to investigate the factors that influence group communication and group effectiveness in Korean organizations. This study identifies two sets of variables that influence communication in Korean groups, organizational structure as external context and group relational climate as internal context that influence Korean groups. It posits that Korean groups enact certain communication practices in response to these contingency variables, and that the effectiveness of communication and group performance depends on how well these communicative practices meet the demands of the group's contexts.

The relationship between communication effectiveness and contextual factors has long been an intriguing question for communication scholars and practitioners. Previous studies have provided some insights into this question. This study should contribute additional information about this relationship. At a more particular level, this culture specific study will provide a deeper description

of communication phenomena in Korean groups. The unique aspects of Korean groups and organizations will be explored from a communicative perspective.

Communication effectiveness has generally been assumed to be a function of personal predispositions in Korean society, which rarely recognizes group and organizational communication studies. This study takes the position that individual communication activities including communication competence and effectiveness are bound to organizational and group systems. Without considering those characteristics as a system, we will be restricted in our understanding of group communication activities. The results of this study will explain the relationships between organizational and group characteristics and communication effectiveness. This explanation will not only contribute to the body of research scholarship, but it will also provide practical guidelines to evaluate communication activities and redesign organizations for practitioners and managers in Korea.

This study will test the premise of contingency theory originally developed for Western contexts in the different cultural setting. Development and testing a contingency theory of communication effectiveness in Korean groups has the potential to provide insights for contingency theory in general. Tayeb (1988) argues that the contingency model cannot explain the many differences across cultures. It is worthwhile to investigate the contingency model in a specific cultural context in order to examine whether contingency theory can be applied

into other cultures or not. In addition, it is possible that there may be different patterns of contingencies for different cultures.

Most research has used contingency theory to explain relationships at the organizational level. Relatively few studies have focused on group level contingencies and communication effectiveness. Groups exist within the larger collectivities and have their own identities. Just like organizations, groups interact with their environments, adjusting, and changing constantly. This study argues that a contingency model can explain the relationship between group contextual factors and group communication effectiveness by examining the fit of communication practices with contingency variable patterns.

The remainder of this dissertation is organized as follows: Chapter II presents a review of aspects of Korean culture and the influence of culture on group communication in Korea. Chapter III presents a contingency model to test group communication effectiveness of Korean organizations. Chapter IV describes methods and procedures to conduct this study. Chapter V presents the results of the study. Finally, Chapter VI concludes this dissertation with the implication of the findings of this study, limitations and implications for future research.

CHAPTER II

LITERATURE REVIEW

The remarkable economic development of Korea in the past few decades has motivated many researchers to study this phenomenon (Chang & Chang, 1994; Chang et al., 1997; Chen, 1995; Kim & Kim, 1989; Lee, 1989; Lee, 1989; Morden & Bowels, 1998; Ungson et al., 1997). The majority of these studies have focused on factors related to organizational structure and management style that distinguish Korean organization from those of Western countries. However, because most of these studies have taken a managerial perspective, the focus of these studies tends to be on managerial practices and systems. Relatively few studies (Kim, 2002) have investigated the characteristics of interpersonal communication in Korea and little research has been done that is directly concerned with group communication in Korea.

This chapter will attempt to develop some expectations about the nature of group communication in Korean and the influence that Korean organizations may have on group communication. It will do so-based on the limited knowledge in the literature concerning group communication in Korea and on extrapolation from literature on Korean culture, organizations, and interpersonal relationships, all of which hold clues as to the nature of Korean groups and their place in Korean organizations.

After consideration of cultural and organizational contexts surrounding groups in Korea and their implications for group communication, the following section will specify the unique aspects of Korean groups based on previous study and the study conducted by the researcher (Cho, 2003).

The chapter will discuss aspects of Korean culture relevant to groups, findings related to interpersonal communication in Korea and their implications for group communication, and the characteristics of Korean organizations that should influence group communication. The last subsection will consider the uniqueness of groups in Korean organizations.

ASPECTS OF KOREAN CULTURE

Communication is “the basic social process that is influenced by the philosophical foundations and value systems of a society” (Yum, 1987). Therefore, in order to understand the context of group communication in Korea, it is reasonable to explore the characteristics of Korean culture first. Trice and Beyer (1993) state, “When organizations adapt their internal structures and practices to demands from their environments, they are, in effect, conforming to aspects of the surrounding culture” (308).

There is an ample empirical evidence that national cultures vary and that a variety of management practices including decision making and management practices, differ by national culture (Cushman & King, 1985; Gaenslen, 1986; Hofstede, 1980, 1997; Kume, 1985; Kunda, 1992; Newman & Nollen, 1996; Sharpe, 1997; Sosik & Jung, 2002; Tayeb, 1987; Wong, 1996). Newman and

Nollen (1996; Trice & Beyer, 1993) explain that national culture is “a central organizing principle of employees’ understanding of work, their approach to it, and the way in which they expect to be treated. National culture implies that one way of acting or one set of outcomes is preferable to another” (p. 755).

When management practices are inconsistent with these deeply held values, employees are likely to feel dissatisfied, distracted, uncomfortable, and uncommitted (Newman & Nollen, 1996). Examples from subsidiaries in foreign countries support this idea. The local employees in subsidiaries feel conflicts and contradictions about management practices from parent companies, which are not compatible with cultures of the local employees (e.g. Sharpe, 1996).

Based on their national culture, Korean organizations have developed distinctive organizational cultures and practices. Even though many managerial systems and techniques have been adapted from Western organizations, those have been changed through cultural adjustment (Ungson et al., 1997). The following section will discuss the basic assumptions of Korean culture that still pervade the whole society and could be expected to influence Korean organizations and groups.

Basic Assumptions of Korean Culture

According to Hofstede (1980), individualism-collectivism is one of the main dimensions differentiating cultures. Hofstede (1980) categorizes Korea as a high collectivistic culture, which values family and group goals ahead of individual goals.

The origin of collectivistic culture of Korea can be found in traditional industry and religion. Korea has a long tradition of over 5,000 years based on a single race and country. Through much of its history, the major industry of Korea has been agriculture. The collectivistic culture of Korea has been based on a traditional agricultural community, which values the collectivity, because it is inevitable to depend on a collectivity to survive. In this society, people live closely together; not just the parents and other children, but grandparents, uncles, and so on. When children grow up they learn to think of themselves as part of a 'we' group. The 'we' group is the major source of one's identity, and the only secure protection one has against the hardships of life. Therefore, one owes lifelong loyalty to one's ingroup, and breaking this loyalty is one of the worst things a person can do. Between the person and the ingroup a dependence relationship develops which is both practical and psychological (Hofstede, 1980; Yum, 1987).

The principles of collectivistic culture were established after Confucianism was imported from China during the Yi dynasty (BC 1300). Although Confucianism has been criticized for many reasons, the basic assumptions of Confucianism may be applied to the business environment as well (Chen, 1995; Hyun, 2001; Morden & Bowels, 1998).

It is said that Confucianism is a situation-and context-centered philosophy. Under Confucianism all human relations are particularistic, not universalistic, and have their own contexts. Applying the same rule to everybody with whom

they interact is not appropriate, because each relationship has its own story. Instead, Koreans tend to grade and regulate relationships according to the status of the persons involved and the particular context, since each relationship has its own context and story as well different human beings. It is very natural and right one for Koreans to handle relationships with different manner and rules (Yum, 1987; 1988).

There are the five basic human relationships in Confucianism: loyalty between king and subject, closeness between father and son, distinction in duty between husband and wife, obedience to orders between elders and youngers, and mutual faith between friends (Yum, 1987, 1988). When Koreans practice these relationships, they have developed distinctive interpersonal relationship patterns that are quite different from the individualistic patterns of North America.

Maintaining relationships involves Koreans in long-term and asymmetrical reciprocity. Relationships are complementary and reciprocally obligatory in Confucian philosophy. In a sense, a person is forever indebted to others, who in turn are constrained by other debts. Under this system of reciprocity, the individual does not calculate what he or she gives and takes (Kim, 2002; Triandis, 1995; Yum, 1987, 1988).

The practice of basing one's life on these long-term relationships consequently leads to a clear distinction between in-group and out-group members, because group members come to depend each other and to develop particular moral codes for relationships in a group (Yum, 1987; 1988).

Once Koreans share in-group memberships, they are supposed to trust and support each other and to yield individual interests to group goals. According to the principles of Confucianism, Koreans assume pursuing only individual interests is an immature behavior.

Interpersonal Communication in Korea

Confucianism's primary concern with social relationships has strongly influenced interpersonal communication patterns in Korea. The main function of communication under Confucian philosophy is to initiate, develop, and maintain social relationships. Thus, communication practices of Korean generally emphasize the promotion of such relationships (Kim, 2002; Yum, 1987, 1988). First, communication is perceived to be an infinite interpretive process (Cheng, 1987). It is presumed that each partner is engaged in an on-going process and that the relationship is in flux. Each partner is involved in the process of communication as well as the outcome of communication.

In their communication processes, Koreans are very cautious about using linguistic codes, because the Korean language, Hangeul, is very complex and differentiated according to social status, degree of intimacy, age, sex, and level of formality (Yum, 1987). If an individual violates these rules of the linguistic codes during any communication process, she or he hardly accomplishes the desired outcome from the processes. Thus, the importance of social relationships in Korean society has promoted the differentiation of linguistic codes to accommodate highly differentiated relationships.

The Confucian legacy of consideration for others and concern for proper human relationships has led to the development of communication patterns that allow interlocutors to preserve one another's face (Kim, 2002). Indirect communication helps prevent the embarrassment of rejection by the other person or disagreement among partners, leaving the relationship and the face of each party intact. In addition, non-verbal communication including silence comes to play an important role in preserving one another's face. With this emphasis on indirect communication, the receiver's sensitivity and ability to capture the under-the-surface meaning and to discern implicit meaning becomes critical (Kim, 2002; Yum, 1987;1988).

Characteristics of Organizational Structures

The basic principles of interpersonal relationships also play a role in the development of unique organizational structures of Korean organizations. It is said that a high degree of centralization in organizational structures and group harmony oriented climate are outcomes of the Korean cultural heritage. The Confucian cultural heritage has influenced not only interpersonal relationships, but also organizational structures (Biggart, 1990; Chang & Chang, 1994; Chang et al., 1997; Chang & Choi, 1988; Chen, 1995; Cho, 1992; Ha, 1998; Hamilton & Orru, 1989; Hong, 1999; Hyun, 2001; Kim & Kim, 1989; Kim & Rowley, 2001; Kim, 1976; Kim, 1994; Kim, 2002; Kim et al., 1999; Kim et al., 1993; Kim, Kim, Yoon, & Ryu, 1997; Korean Government, 2002; Krone, 1993; Lee, 1990; Lee, 1989; Lee, Lee, & Souder, 2000; Lee, 1989; LeResche, 1992; Morden & Bowels,

1998; Noh & Fitzsimmons, 1999; Song, 1990; Sung & Gibson, 1998; Ungson et al., 1997; Yi, 1997; Yum, 1987, 1988)

Like a paternalistic family, the organizational structure of many Korean companies is characterized by a high degree of centralization and a low degree of formalization. Decision making is concentrated in the upper levels of managerial hierarchies, and major decisions, especially those requiring expenditures, go through a formal procedure, called *kyul-jae*, requiring approval from upper levels of management (Chang & Chang, 1994; Chang et al., 1997; Chang & Choi, 1988; Chen, 1995; Ungson et al., 1997).

In contrast to the centralized organizational structure and formalized functions, individual jobs are not clearly structured in many Korean companies and usually do not have clear-cut job descriptions (Chang & Chang, 1994; Chang et al., 1997; Chen, 1995; Kim & Kim, 1989; Kim & Rowley, 2001; Lee, 1989; Lee, 1989; Ungson et al., 1997). In general, written system of rules and procedures the basis for assessment of formalization (Hall, 2002). According to Hage and Aiken (1967), "Formalization represents the use of rules in an organization. Job codification is a measure of how many rules define what the occupants of positions are to do, while rule observation is a measure of whether or not the rules are employed" (p. 79).

In terms of this aspect, Korean workgroups do not have a low level of both job codification and rule observation. As in a family, there is no explicitly stated job scope and responsibility, even though each member has a role. Just as in a

family, job tasks and work responsibilities of individual employees are largely determined by the supervisor as their jobs are performed.

Although poorly defined job assignments can bring about low efficiency from ill-distributed workloads and work redundancy, managers may enjoy a high degree of flexibility. It helps teams adjust to changing conditions, such as flexibility in work assignment and organic adaptations. In a family, members willingly help each other and take responsibility to take care of each other under the guide of the father. Like family members, the team atmosphere that pervades Korean organizations is greatly aided by these nonspecific job descriptions, which support individual behavior that is for the good of the company (Ungson, et al., 1997).

Under these cultural characteristics and organizational features, Koreans have developed distinguishing characteristics of group communication to match these characteristics of organizations. The following section will discuss the characteristics of group communication in Korean organizations.

Characteristics of Group Communication Interactions in Korean Organizations

Based on these assumptions, Koreans have developed unique group communication patterns. As well as interpersonal communication, group communication in Korean organizations is oriented to maintain harmonious interdependent relationships among members and to emphasize collectivistic goals ahead of personal goals (Biggart, 1990; Chang & Chang, 1994; Chang et al., 1997; Chang & Choi, 1988; Chen, 1995; Cho, 1992; Ha, 1998; Hamilton &

Orru, 1989; Hong, 1999; Hyun, 2001; Kim & Kim, 1989; Kim & Rowley, 2001; Kim, 1976; Kim, 1994; Kim, 2002; Kim et al., 1999; Kim et al., 1993; Kim et al., 1997; Korean Government, 2002; Krone, 1993; Lee, 1990; Lee, 1989; Lee et al., 2000; Lee, 1989; LeResche, 1992; Morden & Bowels, 1998; Noh & Fitzsimmons, 1999; Song, 1990; Sung & Gibson, 1998; Ungson et al., 1997; Yi, 1997; Yum, 1987, 1988).

The communication patterns of members of Korean workgroups are very different in formal and in informal meetings. In the Korean context, formal meetings is any task related meeting that is held officially and at which the attendance of members is required. An informal meeting is an unofficial gathering of members of a workgroup after office hours. The following section will briefly discuss the differences of communication patterns between formal and informal meetings in Korean workgroups.

During formal meetings, based on the cultural legacy, the respect for hierarchical relations including seniority is exercised through a centralized communication pattern. An openly different opinion may embarrass or antagonize one's superior. A high degree of centralized organizational structure also promotes top-down or centralized communication patterns in formal meetings in Korean organizations. During formal meetings, subordinates are supposed to report task performance and leaders usually give general directions. Since leaders frequently use indirect communication styles, subordinates have to interpret the hidden meaning of leaders' intentions.

Alternatively, members consult with their leaders in a private meeting to preserve face for party. Paternalistic leadership is an example of how to preserve and reinforce relationships between supervisor and subordinates in Korean organizations (Chen, 1995).

Harmonious interdependence among group members is the norm in Korean organizations. Organizational climates promote those relationships among employees through organizational rituals (Chang & Chang, 1994; Chang et al., 1997; Chang & Choi, 1988; Chen, 1995; Ungson et al., 1997). Members also build close interpersonal relationships with colleagues and even with superiors voluntarily. Mutual trust and understanding among co-workers and respect for seniority and hierarchy are managed to maintain interpersonal closeness. Members are required to have these qualities to be a desirable member in an organization.

This tendency may result in frequent informal meetings among members. The primary purpose of these meetings varies along with occasions, for example celebrating personal events and enjoying social activities together. The ultimate goal of these meetings is to build close interpersonal relationships through these meetings and members of Korean workgroups believe that maintaining good relationships among co-workers is a virtue and important in task process.

In contrast to formal meetings, many Koreans are very good at free communication on informal occasions, especially on a one-to-one basis with a superior. There are many opportunities for informal communication between

superiors and subordinates; sophisticated superiors are required to constantly make such opportunities available (Chen, 1995). In addition, superiors have responsibilities to educate and take care of subordinates as fathers do in the family. Close interpersonal relationships are antecedents and outcomes of the frequent informal meetings in Korean organizations.

Another characteristic of Korean groups is group conformity. According to Ridgeway (1983), conformity is “a member’s willing or unwilling adherence to group norms” (p. 157). It is said that a cohesive group shows a high level of group conformity, since a highly cohesive group is one that binds the members tightly together, it naturally is one which the members actually care about, one to which they feel committed (Ridgeway, 1981, 1983).

The collectivistic nature of Confucian society is reflected in strong relationships among group members. The maintenance of group cohesiveness and integrity is especially sensitive. In this cultural context, acting in accordance with the expectations of others rather than with individual wishes and attributes is a desirable behavior with a moral component (Chen, 1995; Chung & Pysarchik, 2000; Hyun, 2001; Kim & Nam, 1998).

A study at TNC (Tongyang Nylon Company in Korea) revealed that TNC employees generally respected group opinions and were generally willing to comply with group decisions (Chang et al., 1997). Sixty-five percent of TNC employees stated that they were willing to go along with the group opinion even though they might not agree with it.

Conforming to the group's opinion, however, does not necessarily mean that one agrees with it. Moreover, members follow group decisions as properly displaying tact or sensitivity toward others. In a culture of placing a high value on interdependence and fostering empathic connections with others, members may gladly emulate their associates and may be responsive to other's wishes in order to sustain smooth social relationships (Kim, 2002). Thus, conformity may not reflect an inability to stick by one's own perceptions, attitudes, and beliefs in the face of social pressure. Rather, it reflects a cultural orientation that considers other's feelings and relationships to preserve group harmony.

UNEXPLORED AREAS OF GROUP COMMUNICATION IN KOREAN ORGANIZATIONS

The preceding discussion describes the national culture of Korea and its likely influence on communication patterns in organizations and groups. Based on these studies, we can conclude that communication interactions in Korean organizations and organizations differ in important aspects from those of Western organizations

However, communication interaction in Korean groups is still a relatively unexplored research area. No study directly addresses the context of group communication interactions in Korean organizations and as the previous section indicates, much of what we know rests on inferences from studies that are not directly concerned with groups. Very few studies have focused explicitly on.

How members actually communicate with other members in workgroups or Korean views of what members makes groups or teams effective are unknown. Of particular interest for this study, there is also little evidence on the relationship among group communication activities, and the organizational context for workgroups.

To address this lack of direct evidence, Cho (2003) conducted a survey of Korean workgroups members concerning group communication activities and members' perceptions of their communication effectiveness.

Most respondents of Cho's study reported that the various types of formal and informal meetings were important to communicate in their groups. Previous studies have also reported this (Chen, 1995; Ungson et al, 1997). Regarding formal meetings, respondents indicated that several types, including morning, weekly, monthly, quarterly, and annual meetings. These meetings were devoted to information sharing, coordinating tasks, task evaluation, and goal setting. In formal meetings, team members report progress on their project, and the team leader gives directions on his or her own rather than encouraging the input of members. Respondents reported that communication in formal meetings were highly centralized, consistent with other studies

In addition, most respondents indicated that they also had various types of informal meetings with co-workers after office hours, such as dinner, small group activities, and parties. The reasons for these informal meetings included building communication networks, maintaining good relationships with co-workers, and

sometimes discussing their jobs in a more informal and comfortable setting. Informal meetings played a role in complementing formal meetings. Even though members could not communicate freely in formal meetings, they had opportunities to communicate freely on informal occasions, especially on a one-to-one basis with their group leader.

These communication activities correlate with the specific features of organizational structures and national culture in Korea that were discussed previously. The respondents reported that centralized organizational structures had resulted in a lack of participation in decision-making and emphasized top-down communication. A low degree of formalization in Korean organizations leads to frequent meetings to make decisions or share information, while centralized organizational structures hinder free and open communication during formal meetings. Informal meetings with co-workers or leaders provide alternative opportunities for communication. According to Cho (2003), the respondents revealed that they usually consult with their colleagues, including their team leader and co-workers, when they need information related to their job, even during informal meetings after office hours.

In addition, the Korean cultural orientation, which values group harmony and close interpersonal relationships encourages holding frequent gatherings among co-workers. Through these activities, members believe that they come to understand each other better and maintain good relationships with co-workers that are important for their work. Cho found that respondents believed that

communication effectiveness was achieved when they had open communication and mutual understanding among members.

Another interesting point of Cho's (2003) study was that there seemed to be a pattern of relationship among organizational structure variables and communication practices; the level of centralization and formalization was related to the number of meetings members reported. Also members' perception of communication effectiveness was significantly related to whether they held meetings that responded appropriately to the needs imposed by their structural contexts. Communication activities including both formal and informal meetings played a role in satisfying and supplementing the requirements from members' needs regarding performing tasks and maintaining their relationships. If members had appropriate meetings in spite of the limitations of organization structure, their perceived communication effectiveness was high.

DISCUSSION

The preceding sections imply that members of Korean organizations experience conflicting requirements of organizational features based on tradition – which emphasize centralization and low degree of formalization—and their individual' needs to reduce uncertainty and enjoy good relationships with coworkers. In order to achieve effective communication, communication practices in Korean organizations must attempt to satisfy both requirements simultaneously.

It therefore seems likely that Korean groups communication practices are the result of an interplay between organizational structure and group relational climate. Communication practices will be socially constructed to complement both negative and positive aspects of these two factors. The effectiveness of group communication consequently will be based on whether communication practices satisfy the (potential conflicting) requirements of organizational structure and group relationships.

Understanding communication in Korean organizations requires an in-depth understanding of complicated issues confronted by these organizations and members. In the case of Korean workgroups, to understand communication patterns requires investigation of three sets of variables: a) organizational structure, surrounding the group, b) interpersonal relationships in groups, and c) group communication practices. Even though it is not easy to identify clear relationships among these three aspects, there may be patterns of contingencies that influence communication patterns in Korean workgroups. .

The following chapter will develop a contingency model of group communication in Korean organizations.

CHAPTER III

CONTINGENCY MODEL

This chapter will present a contingency model of group communication effectiveness in Korean organizations. When we refer to “group communication”, we select the work group as the basic unit of analysis of this study. According to Levine and Moreland (1991) state that “a work group consists of three or more persons who integrate regularly to perform a joint task, who share a common frame of reference, who have affective ties with one another, and whose behaviors and outcomes are interdependent” (p. 258). Devine and his colleagues (Devine, Clayton, Philips, Dunford, & Melner, 1999) define a team as “a collection of three or more individuals who interact intensively to provide an organizational product, plan, decision, or service” (p. 681). The term, work group will be used to refer to both “group” and “team” in this study.

GROUP COMMUNICATION AND GROUP PERFORMANCE

Several theories of group communication provide grounds for predictions related to group performance and communication effectiveness. The functional theory of group decision making (Hirokawa, 1996; Hirokawa, 1980a; Hirokawa, 1980b; Hirokawa, 1985; Hirokawa, 1994; Hirokawa, Gouran, & Martz, 1988; Hirokawa & Keyton, 1995; Hirokawa & Salazar, 1999) states that the quality of group decision-making depends on group’s ability to achieve several critical communication functions including “1) the analysis of the problematic situation;

2) the establishment of goals and objectives; 3) the evaluation of positive and negative qualities of available choices; and 4) the formulation and utilization of available information” (Hirokawa, 1996, p.113). However, functional theory has been criticized because it separates group performance from the context of the group surrounding contexts (Billingsaley, 1993).

While functional theory focuses on communication functions during group decision-making processes, Hirokawa and Salazar (1999) state that “group decision making research adopting a constitutive perspective seeks to understand the processes involved in the creation of the social environments in which groups work, and how those environments subsequently are related to group performance”(p. 178).

One constitutive perspective, structurational research (Poole, 1996; Poole, Seibold, & McPhee, 1996) has focused on finding the way in which how the “actions by members of social collectivities create the structures that enable and constrain future interactions” (Poole & Desanctis, 1992, p. 5). In particular, Poole and his colleagues (Desanctis & Poole, 1994; Poole, 1996; Poole & DeSanctis, 1992; Poole, Keyton, & Frey, 1999; Poole, Seibold, & McPhee, 1985; Poole et al., 1996) examine how group decision support systems influence group structures that, in turn, influence group decision making. Their studies found that group resources and structure interact with each other through structuration processes.

In the psychology, sociology, and management literature there are several

important models addressing the effectiveness of work groups. For example, Gladstein (1984) called for a comprehensive model of work group effectiveness because “differences in group effectiveness cannot be attributed solely to the behaviors used to accomplish the group’s task” (p. 499). Her model defines “group effectiveness as group performance, satisfaction of group member needs, and the ability of the group to exist overtime” (p. 499). Gladstein found that ratings of open communication, supportiveness, active leadership, training, and experiences in the organization were all positively associated with group ratings of satisfaction and performance.

Hirokawa and Keyton (1995) identify three sets of factors that collectively influence the performance of organizational task groups by combining Hersey and Blanchard’s (1988) notion of collective group maturity, Larson and LaFasto’s (1989) characteristics of high-performance teams, and Hackman’s (1990) organizational analysis of work groups. The three factors include individual influences, structural properties, and organizational properties. Hirokawa and Keyton proposed several propositions regarding the interrelationships among the various components of the model. The proposition that “the effectiveness of a work group’s performance is determined by the ability and motivation of its members, as mediated by the appropriateness of the strategy employed by the group in completing its task” (Hirokawa & Keyton, 1995) was supported.

Hirokawa and Keyton’s study (1995) incorporates all three sets of variables into a model that explains group effectiveness. The key point in their theory is

that the three factors are interrelated to each other and, in effective groups all three factors have a particular pattern of values. However, they do not provide an in-depth explanation of how and why the factors are interrelated.

Regarding the relationships among the various components of groups and organizations, Shaw argues that “Group performance is assumed to be the consequence of a complex set of variables or group elements and the interactions among those elements. The term group elements, refers to all those aspects of the group and the group situation that influence or may be expected to influence group process” (Shaw, 1981, p. 30).

In Shaw’s argument, group elements that affect group performance may be either intrinsic or extrinsic with respect to the group. Extrinsic elements include such things as member characteristics (for example, abilities, personality characteristics, attitudes) and group tasks. Intrinsic elements include those aspects of the group that result from group interaction (for example group structure, group cohesiveness, group compatibility).

Group congruency refers to “nonconflicting, harmonious relationships among group elements; hence, congruent groups should be characterized by harmonious group process and greater productivity” (Shaw, 1981, p. 31). According to Shaw (1981), “In general, when the group is harmonious and nonconflictual, the energy available to the group can be used in the interest of goal attainment. But if the group process is characterized by tension, interpersonal conflict, and member discontent, much of the group’s available

energy must be devoted to resolving these internal problems, and less energy will be available for goal-directed activities” (p. 31).

Shaw’s group congruency theory has the potential to explain the kinds of interrelationships among group elements would be related to group performance: the consistency or congruency. However, the descriptions of the relationships among group elements in group congruency theory appear to be somewhat vague and elusive. There is no clear explanation concerning what constitutes “harmonious relationships” among group elements. Whether harmony means that all variables should share the same or similar characteristics or that the variables should be in congruence with their situations or environments is not clear. However, the idea of congruency among elements suggests that one way to formulate the relationship among the elements is in a contingency theory.

THE POTENTIAL OF CONTINGENCY THEORY FOR GROUP COMMUNICATION

As discussed at the end of Chapter II, the interrelationships among group elements could be explained in terms of contingent relationships, rather than simple causal statement. Because each group confronts its own environment, the interrelationships of various components of group communication and effectiveness will vary depending on the requirements of surrounding environments.

We can find a model for a theory of group contingencies in the literature on structural contingency theory in organizations. This theory posits that in order to cope with the demands imposed by contingency variables such as task, size, and environmental turbulence, organizations must respond by adapting their strategy and structure so that they can maintain effectiveness (Child, 1977; Kono & Stewart, 2001). Environment is a particularly important contingency: different environments have particular economic and technical characteristics, each of which calls for a unique competitive strategy and structure. “There is no one best structure, but a number of different structures may be suitable for differing situations” (Millar, 1978). Thus, getting organizational structure to fit the environment is the key to effectiveness (Child, 1977; Donaldson, 2001; Drazin & Van de Ven, 1985; Lorsch & Morse, 1974; Tayeb, 1987; Van de Ven & Drazin, 1985)

The complicated interrelationships among organizational contextual factors can be explained by the concept of “fit” in contingency theory. To explain how organizations achieve a “fit”, Drazin and Van de Ven (1985) describe a structural contingency theory which proposes that the structure and process of an organization must fit its context (characteristics of the organization’s culture, environments, technology, size, or task) if it is to survive or be effective. The law of interaction in a contingency theory purports that organizational performance depends on the fit among organizational context, structure, and process including task size and other organizational characteristics.

The premise of the contingency model is based on the argument that the “survival of an organization depends upon its efficient and effective performance. This optimum performance, in turn, can be achieved if it responds and adapts to its environmental demands ‘appropriately’. The appropriate response is crystallized in a ‘match’ or ‘fit’ between structural characteristics and contextual and other environmental variables” (Lawrence & Lorsch, 1967).

Contingency theory proposes that the appropriate organizational structure and management style are dependent upon a set of “contingency” factors, usually the tasks the organization engaged in and characteristics of the organizational environment (Drazin & Van de Ven, 1985; Van de Ven & Drazin, 1985). There are three components in a contingency theory.: contingency variables, response variables and performance variables.

Contingency variables, such as environment, organizational size, task type, and task difficulty, put pressure on the organization to react by facing it with various levels of challenge that it must meet. Response variables are the actions that the organization takes to meet the requirements of the contingency variables, such as adopting a structure or strategy suitable to meet the challenge posed by the contingency variables. Performance variables refer to the results of adaptation to the contingencies, such as organizational effectiveness, survival and growth. Contingency theory states that if the responses of the organization meet the requirements of the contingency variables, then organizational performance will be good (Drazin & Van de Ven, 1985; Van de Ven & Drazin,

1985). The degree to which the organization's responses match the demands of the contingencies is the degree of "fit" that the organization has achieved.

Drazin and Van de Ven state that there are two elements of fit, congruence and consistency. *Congruence* is "isomorphism between those structure and process variables that are highly correlated with context," (p. 522) that is, a harmonious pattern among response variables so that they do not conflict with each other. An organization choosing an aggressively innovative strategy and a bureaucratic, hierarchical organizational structure would have low congruence, since rigid hierarchies tend to decrease ability to innovate and carry out the chosen strategy. *Consistency* is the degree of match between the organization's responses and the demands of its contingencies. In order to be effective an organization must achieve both congruence and consistency. , and second, as an interaction form of fit for the particularistic variables"(p. 522 (Child, 1975; Donaldson, 1987; Drazin & Van de Ven, 1985; Gresov, 1990; Pennings, 1987).

Contingency theory has been a major theoretical lens used to view organizations (Donaldson, 2001), because of its theoretical insights and substantial empirical support. Organizational studies have used contingency theory to explain relationships between organizational structures and organizational environments (Barney, 1985; Burack & Sornsen, 1977; Child, 1977; Jehn & Bendersky, 2003; Johnson & Chalfant, 1993; Kast & Rosenzweig, 1973; Levitt et al., 1999; Nalbandian & Klingner, 1980; Nutt, 2001; Ruekert, Walker Jr, & Roering, 1985; Schreyogg, 1980; Tarter & Hoy, 1998).

Research on organizational structure has identified a number of contingencies, including task uncertainty (Gresov, 1990), technology (Woodward, 1965), innovation (Hage & Aiken, 1967), environmental change (Child, 1975), technological change (Burns & Stalker, 1961), size (Blau, 1970), diversification, vertical integration (Rumelt, 1974), and task interdependencies. While much of contingency theory research has studied organizational structure (Child, 1972a.; Davis & Schul, 1993; Donaldson, 2001; Drazin & Van de Ven, 1985; Gresov, 1989); (Millar, 1978; Pennings, 1975), contingency theory has been applied to various other aspects of organizations including leadership (Fiedler, 1967, as cited in Donaldson, 2001), human resource management (Delery & Doty, 1996), the strategic decision-making process (Davis & Schul, 1993; Frederickson, 1984), organizational conflicts (Jehn & Bendersky, 2003), and organizational culture (Newman & Nollen, 1996; Tayeb, 1987, 1994; Tayeb, 1988; Tosi & Slocum, 1984).

Through these studies, organizational scholars and practitioners have shown the value of contingency theory in explaining relationships between organizations and their environments. Contingency theory has explained the interrelationship among the dimension of organizational structure (Pugh, Hickson, Hinings, & Turner, 1968), found contingency factors that critically influence organizational structures (Child, 1972a., 1972b, 1977; Inkson, Pugh, & Hickson, 1970), and showed the effect of fit on performance (Child, 1975; Donaldson, 1987; Drazin & Van de Ven, 1985; Gresov, 1990; Pennings, 1987).

Since most research on contingency theory has been conducted in the field of management, it has reflected a managerial perspective and focused on the relationships among organizational structure, strategy, technology, and environment (Donaldson, 2001). However, contingency theory has the potential to be applied in group research if the theory captures the unique characteristics of group processes. Only a few studies have used a contingency framework in order to explain group performance and communication. The following section will discuss how contingency theory works for groups and provide a few examples of contingency research on group communication.

CONTINGENCY THEORY APPLIED TO GROUPS

Tushman (1979a; 1979b) applied contingency theory in research on the relationship of subunit work characteristics to subunit structure and performance. Tushman investigated whether high-performing subunits with different information-processing requirements have systematically different degrees of communication structures. The findings of Tushman's studies support the contingent relationships between communication structure and information-processing requirements. High-performing projects had communication structures that fit the requirements of their tasks: decentralized patterns of communication were more effective for nonroutine complex problems, while centralized, or hierarchical, patterns were more effective for more routine problems.

Putnam (1989) applied a contingency framework to communication between organizational groups. In this model, Putnam argued that interaction patterns between groups are contingent upon task characteristics, work flow, decision-making styles and communication patterns. Different levels of organizational characteristics such as complexity, centralization, and formalization would result in very different outcomes in group communication interactions. Group interactions are shaped and changed responding to the needs and requirements of organizational structure. For example, Putnam (1989) argued that task uncertainty, work-flow interdependence between groups, and decentralized organizational decision-making will lead members to spend more talk time fluctuating between the orientation and conflict stages of group development. (Putnam, 1989). Fiedler believes that leadership effectiveness depends on both the leader's personality and the situation. Certain leaders are effective in one situation but not in others. Fiedler found that the task oriented leaders were more effective in low and moderate control situations and relationship oriented managers were more effective immoderate control situation (Fiedler, 1971)

Tushman's and Putnam's studies broaden the reach of structural contingency theory, beyond organizational structures and environments by investigating the fits between communication structure and task requirements. In contrast to previous studies in group communication, contingency research on group and communication aims to investigate the interrelationship of group variables and its influence on communication patterns or interactions.

According to Poole and Hirokawa (1996),

a contingency theory of group decision making is premised on the assumption that group outcomes are a function of the match between (a) the demands placed on the group and the resources provided it, and (b) the communicative processes the group enacts to meet these demands and deploy its resources (p. 13).

While these studies incorporate task requirements into a contingency framework to predict group communication patterns, Baligh (1994), Tosi and Slocum (1984), and Tayeb (1987) assert that the contingency framework should incorporate cultural factors as well.

Tosi and Slocum (1984) argue that culture can be integrated into contingency models by examining its relationships to three different sets of variables - individual responses, group factors, and organizational culture - and through these to organizational design and strategic choice. Specifically, Baligh (1994) employs a contingency framework in order to explain the influence of organizational culture on organizational structure. Baligh proposes that if an organizational culture values “altruism over selfishness (the group more highly than the individual), believes that cooperation is more efficient than competition in achieving group goals, believes that harmony in personal relations is best at getting cooperation, then the organization structure that fits it at a high level has very high level of participation by all members of the group in making the decision rules for every member and decision rules made by consensus” (p. 25).

Cultural factors have also been considered in structural contingency research. Tayeb’s (1987) study found that the contingency model of the

research cannot explain the many differences between Indian and English organizations. According to Tayeb, these differences appear to be more consistent with the general characteristics of the societies, in which these organizations operate, and their employees' cultural traits.

Thus, as Tosi and Slocum argue, if the contingency model includes a variable that can reflect the cultural orientations of organizations investigated, the contingency model will have more power to explain organizational outcomes.

The following section will discuss a contingency framework for group communication in Korean organizations. Chapter II discussed possible patterns of communication that occur in Korean work groups. This review suggests that it is possible to infer that Korean organizations have their own pattern of responses to the demands of organizational structures and group relational climates and that their response patterns to these contingencies may be different from those of Western groups.

VARIABLES IN THE CONTINGENCY FRAMEWORK

As noted above, there are three components in any contingency theory: contingent variables, response variables, and performance variables (Drazin & Van de Ven, 1985; Van de Ven & Drazin, 1985). Contingent variables refer factors in the unit or its environment that pose challenge that the unit must meet. Response variables are processes or actions taken by a unit in response to the contingencies. Performance variables refer to outcome variables used to measure effectiveness, which is expected to be high if the unit makes the

appropriate responses to the contingencies and low if it does not. The following sections will discuss these variables of each type that will be employed in this study.

Contingent Variables

There are two contingent variables in this study: organizational structure and group relational climate. While groups often exhibit similar characteristics to those of the organization they belong to, each group also has unique characteristics based on its own history and context. Some contingencies of group communication are within the group and some are external. Gladstein (1984) states “groups form a link between the individual and the organization” (p. 499). Groups typically perform as subgroups- which are parts of larger organizations. The effectiveness of a group may be quite different when it is in isolation when it is embedded in a larger organization (Cohen, Robinson, & Edwards, 1969) .

Even though groups in a larger collectivity are exposed to complicated and diverse layers of external environment, the most immediate environment of a group or team is the organization that the group belongs to. Organizations develop their own organizational cultures and organizational structures in response to demands of their environments (Birnbaum & Wong, 1985; Durham, 1988; Erez, 1992; Tayeb, 1987; Tosi & Slocum, 1984). Group interactions are shaped and changed in order to respond to the needs and requirements of organizational structure.(Putnam, 1996) states, “Groups are shaped by and in

turn shape on organization's structure" (p. 54). Different levels of organizational characteristics such as centralization and formalization should pose very different challenges for groups, resulting in different responses that are connected to group effectiveness.

Thus, organizational structure is the primary contingent variable influencing group interaction. The choice of certain organizational structures and the response to task variables also reflects the cultural orientations of members. For instance, the centralized organizational structure that characterizes many Korean organizations reflects a cultural heritage based on Confucianism, high power distance, and paternalistic relationships (Chen, 1995). These organizational characteristics and structures influence group communication interactions at both the interpersonal and group level. When an individual enters a group, he or she learns, experiences, and practices communication through existing organizational cultures and structures. Thus, most communication activities within groups are influenced by these organizational factors (Tayeb, 1987; 1988). We can distinguish two dimensions on which organizational structure varies in Korean organizations: centralization and formalization.

Centralization is a frequently researched aspect of organizational structures. Centralization has been defined in several ways, with an emphasis always on the distribution of power. Hage (1980) defines centralization as "the level and variety of participation in strategic decisions by groups relative to the number of groups in the organization" (p. 65). The greater the level of participation by a

greater number of groups in an organization, the less centralization (Hall, 2001). Van de Ven and Ferry (1980) define centralization as “the locus of decision making authority within an organization”. Hall (2001) argues “when most decisions are made hierarchically, an organizational unit is considered to be centralized; a decentralized unit generally implies that the major source of decision making has been delegated by line managers to subordinate personnel” (p. 399).

The degree of centralization of an organization is also an indication of what the organization assumes about its members. High centralization implies an assumption that the members need tight control; low centralization may suggest that the members can govern themselves (Hall & Saias, 1980; Hall, 2001).

A major outcome of varying degrees of centralization impacts the organization itself. High levels of centralization mean “greater coordination but less flexibility; consistent organization-wide policies but possibly inappropriate policies for local conditions; and the potential for rapid decision making during emergencies but overloaded communications channels during normal operations as communications flow up and down the hierarchy” (Hall, 2001, p.96).

Centralized organizational structures affect the relationships between supervisors and subordinates, which in turn causes the adoption of centralized communication practices. A centralized communication practice is one in which communication practice among members is highly centralized along the lines of

hierarchical level or status. For instance, during formal meetings in Korean organizations, subordinates report the progress of tasks, and leaders provide guidelines and make decisions for them. Alternatively (but less likely, according to the predictions we will make below), a group can develop new types of communication practices, such as informal meetings, to overcome poor communication between supervisors and subordinates. During these meetings, members can share their inner thoughts without risking face. Other small group activities after office hours will increase opportunities to communicate across the hierarchy.

If an organization has a decentralized structure, communication practices are likely to be devoted to the exchange of members' opinions. Members are likely to have equal chances to participate in decision-making processes.

Formalization is another aspect of organizational structure. Formalization is defined as "the degree to which goals, rules, policies and procedures for logistics activities are precisely and explicitly formulated" (Daugherty, Germain, & Droge, 1995). When an organization has a high level of formalization, there may be less need for communication interaction. According to Hall (2001),

Formalization is the key structural variable for the individual because a person's behavior is vitally affected by the degree of such formalization. Organizations learn from past experiences and employ rules as a repository of that experience. Some organizations carefully codify each job, describing the specific details, and then ensure conformity to the job prescription. Other organizations have loosely defined jobs and do not carefully control work behavior" (p.72).

If an organization has a high level of formalization, communication requirements to coordinate tasks would be lower than in one with less formalization. Members can perform tasks with following rules and policies. In the case of low formalization, there would be a high level of uncertainty in achieving their tasks. Members would need to interact with each other in order to discuss their jobs and respond to the uncertainty.

The second contingency variable is a group level variable, group relational climate. Group relational climate refers to the quality of interpersonal relationships among group members. Interpersonal relationships among members are an inherent part of group life. Keyton (1999) states that “even with primarily task oriented groups, relational issues are related to task issues in crucial ways.” (p. 195). The types of interpersonal relationships among members may vary along with group elements, such as group composition, group history, task types, group structures, and group culture. Through relational processes, groups come to have their own relational outcomes including norms, cohesiveness, conformity, and groupthink (Keyton, 1999).

Group communication interactions are bound up with these relational outcomes. For example, if a group has a high level of cohesiveness, communication practices tend to be shaped to maintain the cohesiveness.

Relational orientations and outcomes are heavily influenced by cultural orientations among group members. As Frey (1996) explains:

Most real-life groups are embedded within a history that constitutes and continually is reconstituted by their communication practices and

decision-making outcomes. This shared history, constructed socially over time through language, arguments, stories, and symbols, represents a “deep structure” that influences the “surface structure” of a group’s interactional patterns and decision-making (p. 19).

The cultural orientation of members is a basic scheme of a “deep structure” of group embeddedness as Frey explained. For example, as discussed in Chapter II, frequent informal meetings are observed in groups in Korean organizations. The respondents indicated that the informal meetings are very crucial to maintain the interpersonal relationships, and also to perform their tasks. They indicated that maintaining good relationships with others is the most important virtue of working life, even more important than getting benefits from those relationships.

These tendencies well reflect the cultural orientation of Korea. As discussed in Chapter II, Koreans value harmonious interdependent relationships among group members and tend to mix task issues with interpersonal issues. Members’ cultural orientations are also embedded in group relational climates. In particular, in the case of group communication in Korean organizations, it is important to recognize the role of group relational climate in communication interactions, since this reflects cultural variability of communication interactions on a contingency framework. Group relational climate in this study is defined with respect to two variables, interpersonal relationships and conformity pressure. Closeness in interpersonal relationships is defined as the degree to which group members feel intimacy or attachment to other group members as person-qua-person. Group conformity pressure is defined as the degree to

which group members feel group pressure to comply with the group norms regardless of their own private views in order to maintain group harmony (Chen, 1995; Chung & Pysarchik, 2000; Hyun, 2001).

Members' relational orientations act as antecedents that influence other aspects of group interaction (Barker et al., 2000). They are entwined in the process of group work and affect communication practices. If members of an organization value close relationships and group harmony among co-workers, communication practices will be developed to satisfy members' need for interpersonal relationships. With respect to conformity or deviance in group contexts, relational concerns such as attraction or dislike of group members can be influential. When group members choose to conform or not to conform to group expectations because of relational issues, group communication is significantly affected. (Barker et al., 2000).

Especially for group communication, organizational structure and group relational climate significantly influence the types and frequency of communication practices, communication interaction patterns, and expectations and assumptions of communication interactions (Cohen, et al, 1969; Tushman, 1979a; 1979b; Putnam, 1989).

Response Variables

Communication practices are the response variable in this study. Contingency theory would posit that each group would develop communication practices that fit the organizational structure and group relational climate of the

organization. If communication practices in a group are exercised appropriately to satisfy the demands of organizational structure and group relational climates, communication effectiveness will be increased.

Critical communication practices in Korean groups include formal and informal meetings (Cho, 2003). Frequent formal and informal meetings have been assumed as the unique phenomena of Korean organizations and work groups. This study posits that the results of frequent meetings in Korean organizations may have a significant relationship with groups' structure. Also, communication practices are so broad and abstract to observe from outside. Thus, the investigation of the number of meetings can provide the explicit information about communication patterns in Korean work groups. A formal meeting is defined as the one in which members' attendance is required, which is primarily task-oriented, and which is usually scheduled in advance. On the other hand, participation is voluntary in an informal meeting. Informal meetings are often spontaneous.

Performance Variables

If groups have appropriate communication practices to satisfy the requirements posed by the contingency variables, communication effectiveness will be achieved. Two performance variables will be measured, perceived communication effectiveness and performance level.

The contingency between organizational structure, group relational climate, and communication practices consists of communication appropriate to the

situation created by the structure and relational climate, which in turn results in high levels of performance. For instance, a low level of centralization would require frequent formal meetings to make decisions because of the delegation of decision-making to the group. A low level of formalization also would require frequent formal meetings to coordinate tasks among group members, because there would not be written rules to guide the group. If a group doesn't have enough meetings in either of these cases, its level of communication effectiveness will be low. In addition, if members value close interpersonal relationships, frequent informal meetings will be required to meet their needs for close relationships. It is important to note that the group can always choose to react in inappropriate ways to its contingencies. If it does so, its communication will be less effective. Moreover, it is also possible for the contingency variables to place contradictory demands on the group. For instance, if a group has the high level of centralization and the low level of group conformity, members will feel contradictions stemming from two opposite requirements.

These are the predictions we would expect given US group research and the western tradition of contingency theory. But groups in one culture may have different contingencies and respond to them differently than do groups in another culture. The following section will discuss contingency predictions regarding group communication in Korean organizations.

CONTINGENCY PREDICTIONS FOR GROUP COMMUNICATION IN KOREAN ORGANIZATIONS

There is a reason to expect that contingency relationships in Korean groups may be different from those for Western groups (Sosik & Jung, 2002). For instance, groups in the U.S. in which an individualistic culture is prominent may have a greater tendency to develop formal communication practices that will satisfy the demands imposed by both organizational structures and group relational climates. They will tend to focus more on formal processes to meet the demands of organizational structure, rather than informal processes and they will place less emphasis on group relational climate. If there is a conflict between the requirements of group relational climate and organizational structure, they will tend to satisfy the requirements of organizational structure first, in order to carry out their task directly.

By contrast, in Korean organizations, in which collectivistic culture is dominant, there may be a tendency for groups to develop various types of informal communication practices to meet the needs imposed by organizational structure and group relational climates. Also, group relational climate may be a stronger contingency factor than organizational structure. This does not mean that group members in Korean organizations would totally ignore the demands of formal organizational structure. They are, however, more likely to try to keep a balance between these two requirements than U.S. groups.

With respect to contingent relationships in Korean organizations among these variables mentioned above, it is necessary to consider multiple contingencies. Donaldson (2001) explains “sometimes contingencies may make opposing requirements for the organizational structures needed to fit each of them” (p. 197). In such a situation, the contingencies have “conflicting implications” (Child, 1972, p. 16) for structure, and they are termed “contradictory contingency factors” by Mintzberg (1979, p. 474).

Donaldson (2001) ventures the example of an organization that requires high degrees of innovation whose large organizational size requires high formalization, while innovation requires low formalization, so that the prescriptions of these two contingencies for formalization are in conflict. “The overall level of formalization in the organization reflects the effect of both large size, which is pushing to raise it, and innovation that is pushing to reduce it. The administrative macro-structure has high formalization, while within this, departments that deal in innovation have low formalization” (p. 198).

With respect to the influence of multiple contingencies on performance, Gresov (1989) found an empirical effect of conflicting contingencies. Gresov examined the fit of structure to both the task uncertainty and horizontal dependence contingencies simultaneously. He found that fit and performance were related where both contingencies required similar structures. But when the structures’ requirements conflicted, the relationship broke down and units had lower performance. Donaldson (2001) argues that this finding supports the

argument that conflicting contingencies lead to misfit. According to Donaldson, conflicting contingencies may increase the probability of erroneous management choice by management and hence of misfit, rather than signifying equifinality and a range of equally effective structural choices. However, Donaldson's argument suggests a need for further empirical examination of the conflicting contingencies issue.

Multiple contingencies may exist in Korean organizations, stemming from the opposing requirements of groups and individual needs. In the Korean culture, communication practices should be fit to the needs of group relational climate that focus on group harmony and collectivism. On the other hand, members also have individual needs to participate in the decision-making process in order to exert their individual voice. Thus, communication practices also should reflect members' needs for participating in the group decision-making process and exercising their individual voices. On the basis, most Korean organizations would make erroneous management choices according to Gresov and Donaldson's arguments. However, Korean organizations have survived extremely turbulent environments, such as the Korean War and the recent International Monetary Fund crisis. Thus, the influence of supposedly conflicting contingencies should be reexamined in the Korean cultural context. Korean organizations may have another contingency pattern that enables them to deal with these conflicts.

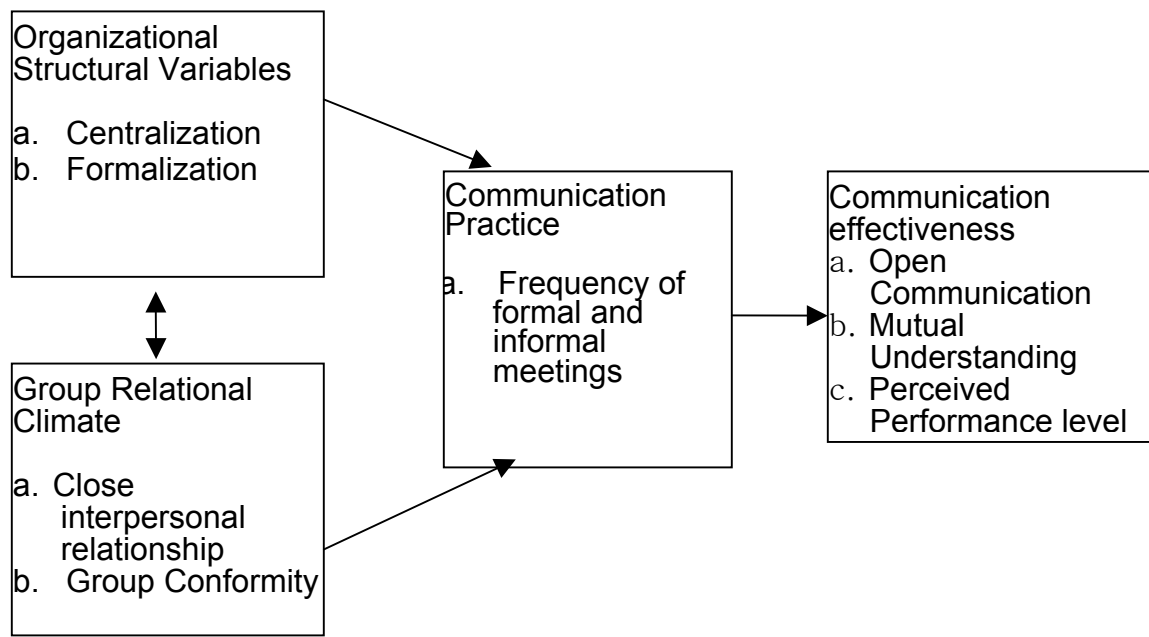
Organizational scholars have begun to recognize conflicts do not necessarily have negative connotations in organizations (Trethewey & Ashcraft, 2004; Putnam, 1996; Martin, 2002). Paradox, conflict, contradiction, and irony are natural phenomena in organizational communication. Thus, they advise people in organizations to find a way to have “peaceful coexistence” with these phenomena.

Based on this perspective, it would be premature to conclude that conflicting contingencies will necessary result in lower performance. In spite of conflicting contingencies, if communication practices can satisfy both opposing requirements, group communication will be effective in Korean organizations.

A Contingency Model of Group Communication in Korean Organizations

This study will test a contingency approach to group communication practices in Korean organizations. Its thesis is that the performance of communication interactions will be determined by the “fit” of communication practices with organizational structural variables and group relational climate. If communication practices in an organization are well-suited to the demands and requirements of organizational structures and group relationships, effectiveness of communication will be high. If communication practices fail to meet those requirements, effectiveness will be low.

A contingency approach will test the “fit” among the following factors: a) organizational structural variables and group relational climate as the contingency variables, b) communication practices as the response variable,

FIGURE 1

A Contingency Model for Group Communication in Korean Organizations

and c) communication effectiveness and group effectiveness as the performance variables. The following paragraphs give general operational definitions for these variables which were defined conceptually in the previous section. Figure 1 illustrates the contingency model for group communication in Korean organizations.

As noted above, the organizational structure variables in this study are the degree of centralization and formalization. Based on previous studies (Chow,

Heaver, & Henriksson, 1995; Hall, 2001), this paper proposes two distinct dimensions of centralization. The first is concentration: the extent to which the power to make decisions is concentrated in the organizations. The second dimension is the hierarchical distance between decision-makers and top managers who make global decisions on an organization-wide (Daugherty, Germain, & Droge, 1995).

According to Hall (2002), "Formalization, or standardization, is measured by the proportion of codified jobs and the range of variation that is tolerated within the rules defining jobs. The higher the proportion of codified jobs and the less the range of variation allowed, the more formalized the organization" (p. 295).

The next variable is group relational climate variable. The group relational climate will be indicated by the degree of group conformity and interpersonal relationships. As discussed above, group conformity and close relationships were found in a preliminary study (Cho, 2003) to be among the central themes used to describe Korean groups. Group conformity is the degree to which members of a group will change their views and attitudes to fit the views of the group (Goldman, Haberlein, & Feder, 1965). This can be influenced via unconscious processes or overt social pressure on individuals. Group conformity will be measured by the degree of pressure that members feel to follow group decisions.

Relationships between employees within organizations can be assessed in terms of their closeness. Close relationships may be developed in part from

similar or overlapping interests, similar role positions, and based on various other means (King, 1997). According to the previous studies (Kelly et al, 1983;(Parks & Floyd, 1996; Wright, 1984), the degree of closeness among group members can be measured by assessing the degree of self-disclosure and supportiveness.

Frequency and types of formal and informal meetings among members will be used to indicate communication practices. Certainly there are many types of communication practices in groups, including nonverbal communication. In this study, however, communication practices will be restricted to formal and informal meetings in order to observe the direct communication activities among members. Formal meetings are defined as meetings that are officially held to discuss the task and members' assignments; the attendance is required for formal meetings. Informal meetings are held to build communication networks and cohesion among co-workers; attendance is voluntarily for informal meetings.

Based on the results of the Cho's (2003) study, we will not differentiate task and relational communication, as might be done for Western groups, because these two types of communication were not differentiated by Korean respondents describing their work groups. Both forms of communication are mingled in Korean groups and all serve task related purposes.

Two outcomes will be measured. First, in this study, communicative effectiveness will be judged from the actor's own perspective. In the case of Korean members, communication effectiveness is defined as the level of

free/open communication and mutual understanding among team members as perceived by the members. The level of open communication among group members including a group leader and the degree to which group members share mutual understanding about goal, task, and even personal circumstances will be examined. Based on the results of the study conducted prior to preparing this proposal (Cho, 2003), members of Korean organizations tend to assume that communication effectiveness should go beyond just clear message delivery. In effective communication, free and open communication based on mutual understandings should be achieved. Members' perceptions of group performance will also be measured in order to assess the relationships between perceptions of communication effectiveness and group performance. This can shed some more light on what Koreans view as ideal communication in their groups.

To get external evidence about group performance, the group manager of each group will be asked to rate the group's communication effectiveness and group performance. This gives a rating of performance that is a different class of data from members' ratings of the groups and organizations.

The predictions of the contingency table of this study, which is adapted to Korean organizations will differ from the predictions for Western organizations in some aspects. Regarding the contingency patterns, it is expected that Korean organizations will have more variation in types of contingency patterns compared to Western organizations. While the cultural heritage of Korea still has

a strong impact on Korean society as a whole, organizations in Korea are currently undertaking radical changes in strategy and structure in order to achieve strategic competitiveness in global society. Also, members of Korean organizations are expected to have qualities, such as critical thinking and proactive attitudes that had been assumed to be undesirable attitudes in traditional Korean organizations. Thus, groups in Korean organizations are struggling with the demands of traditional culture and new challenges from global societies. In order to deal with this tension, it is expected that there will be more complicated and conflicting contingencies in Korean organizations.

With respect to contingency factors, in the case of Western organizations, it is expected that there will be fewer conflicting contingencies and fewer requirements for informal meetings to meet members' demands. In the case of Korean organizations, it is expected that conflicting contingencies stem from the opposing requirements imposed by structure and group relational climate and also by the changing Korean organizations. Compared to Korean organizations, members of Western organizations are more likely to follow the requirements of organizational structures without experiencing conflicts. Because of the cultural orientation, it is not surprising in that the dominant paradigm of communication is an individualistic one (Yum, 1988). Organizational structures with a high level of formalization reflect the cultural tendency that preserves a high level of autonomous self-reliance. Members in organizations are supposed to follow general and objective rules. Interpersonal relationships in organizations may be

controlled by these rules without mixing task and personal relationships. The distinction between public life and private life will protect members from tensions or anxieties stemming from confused relationships with members. If they experience conflicting situations stemming from inconsistent requirements, members of Western groups are most likely to solve this problem by relying on formal routes. Even though Western organizational members may have close interpersonal relationships among group members, they are less likely to use informal meetings to address difficulties.

In particular, a high level of centralized organization structure and a low level of group conformity will bring conflicts into groups. While a centralized structure expects group members to follow hierarchy or top-down communication style, a group, which has a low level of group conformity tends to value group members' opinions. In contrast, a low level of centralized structure and a high level of group conformity will also create conflicts in groups because of opposing requirements.

Table 1 shows the four possible different patterns of responses to high levels of all four contingency variables. As the table indicates, only one of these response patterns (shown in red) leads to high performance. We went through the same process for other fifteen possible patterns of contingency variables and identified response patterns that represent good fitting responses. These are displayed in Table 2. In the table, sixteen patterns of fit are shown. All other response patterns to the contingencies represent lack of fit and should result in

TABLE 1
An Example of Contingency Pattern

Contingent Variable 1		Contingent Variable 2		Response Variable		Performance Variable
Organizational Structure		Group Relational Climate		Communication Practices		Communication Effectiveness
Centralization	Formalization	Group Conformity	Close interpersonal Relationship	Formal Meetings	Informal Meetings	
H	H	H	H	H	H	L
H	H	H	H	H	L	L
H	H	H	H	L	L	L
H	H	H	H	L	H	H

TABLE 2
Sixteen Patterns of Contingencies

	Contingent Variable 1		Contingent Variable 2		Response Variable		Performance Variable
	Organizational Structure		Group Relational Climate		Communication Practices		Communication Effectiveness
	Cen tralization	Formal ization	Group Conformity	Close interpersonal Relationship	Formal Meetings	Informal Meetings	
1	H	H	H	H	L	H	H
2	H	L	H	H	H	H	H
3*	H	H	L	H	H	H	H
4	H	H	H	L	L	L	H
5*	L	H	H	H	H	H	H
6*	L	L	H	H	H	H	H
7	L	H	L	H	H	H	H
8*	L	H	H	L	H	L	H
9*	H	L	L	H	H	H	H
10	H	L	H	L	H	L	H
11*	H	H	L	L	H	L	H
12	L	L	L	H	H	H	H
13*	L	L	H	L	H	L	H
14*	H	L	L	L	H	L	H
15	L	H	L	L	H	L	H
16	L	L	L	L	H	L	H

*Conflicting contingency patterns stemming from the opposing requirements performance.

lower levels of communication effectiveness and performance. Note that here we are referring to the manager's ratings of communication effectiveness and These represent the predictions that we will test in the study described in the next chapter. This section will discuss the fit of each pattern.

from the level of centralization and group conformity.

For each pattern in Table 2, we will now explain the reasoning behind the prediction. In the case of pattern 1 (high centralization, high formalization, high group conformity, and high closeness of interpersonal relationship), effective groups will have fewer formal meetings because of the high level of centralization and formalization. Members do not have to meet together often because their tasks are specified and codified based on written rules and policies. Because of the high level of group conformity, members will follow centralized makings. With respect to informal meetings, members of effective groups will have frequent informal meetings to build close interpersonal relationships. Thus, communication effectiveness increases when members have few formal meetings and frequent and informal meetings.

In the case of pattern 2 (high centralization, low formalization, high group conformity, and high closeness of interpersonal relationship), the low level of formalization requires frequent formal meetings to coordinate tasks. Frequent informal meetings are expected to meet the needs of building close interpersonal relationships. When a group has frequent formal meetings to

coordinate tasks and frequent informal meetings to build closeness among members, communication effectiveness will increase.

In the case of pattern 3 (high centralization, high formalization, low group conformity, and high closeness of interpersonal relationship), the low level of group conformity will lead to frequent formal meetings which runs in opposition to the high level of centralization, even though task coordination does not require them because of the high level of formalization. Frequent formal and informal meetings are required to meet the needs of members. In this case, there is conflict among contingencies stemming from the high level of centralization and the low level of group conformity. Communication effectiveness will be increased when a group has frequent formal meetings and informal meetings.

In the case of pattern 4 (high centralization, high formalization, high group conformity, and low closeness of interpersonal relationship), the frequency of formal and informal meetings should be decreased. The high level of centralization and group conformity will result in fewer formal meetings in effective groups. Low closeness of interpersonal relationships also will lead to fewer informal meetings. When a group has less frequent formal and informal meetings, communication effectiveness will be increased.

In the case of pattern 5 (low centralization, high formalization, high group conformity, and high closeness of interpersonal relationship), to be effective in communication, members will hold frequent formal and informal meetings. Because of the low level of centralization, members will often have formal

meetings to make decisions. Frequent informal meetings will be held to build closeness among coworkers. Communication effectiveness in a group that has frequent formal and informal meetings is higher than that of a group that does not have these. In this case, members are likely to experience a conflict between the high level of group conformity and the low level of closeness.

In the case of pattern 6 (low centralization, low formalization, high group conformity, and high closeness of interpersonal relationship), members will have frequent formal and informal meetings because of the need for decision-making, task coordination and building close interpersonal relationship. If a group does not have enough meetings to do these activities adequately, communication effectiveness will be decreased. In this case, members are likely to experience a conflict between the high level of group conformity and the low level of centralization.

In the case of pattern 7 (low centralization, high formalization, low group conformity, and high closeness of interpersonal relationship), members will have frequent formal and informal meetings because of decentralized structure and close interpersonal relationships. However, the low level of group conformity may make members feel uncomfortable in attempting to maintain close interpersonal relationships. If a group has not held enough meetings to do these activities adequately, communication effectiveness will be decreased.

In the case of pattern 8 (low centralization, high formalization, high group conformity, and low closeness of interpersonal relationship), members will have

frequent formal meetings to make decisions. Informal meetings would be redundant in this case. Communication effectiveness will be increased when a group has frequent formal meetings, but informal meetings should have no relationship with communication effectiveness. In this case, members are likely to experience a conflict between the high level of group conformity and the low level of centralization and closeness.

In the case of pattern 9 (high centralization, low formalization, low group conformity, and high closeness of interpersonal relationship), members will have frequent formal and informal meetings because of the need for participation in the decision-making process and close interpersonal relationship. Frequent formal and informal meetings are necessary to achieve communication effectiveness in this case. Members are likely to experience a conflict between the high level of centralization and the low level of group conformity.

In the case of pattern 10 (high centralization, low formalization, high group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings because of their need for task coordination. Frequent formal meetings and fewer informal meetings are the best communication practices for this group to achieve communication effectiveness.

In the case of pattern 11 (high centralization, high formalization, low group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings because of the need for participation in the decision-making process to achieve communication effectiveness. In this case, members

are likely to experience a conflict between the high level of centralization and the low level of group conformity.

In the case of pattern 12 (low centralization, low formalization, low group conformity, and high closeness of interpersonal relationship), members will have frequent formal and informal meetings because of the need for participation in decision-making process, task coordination and building close interpersonal relationship. If there are not enough opportunities to do these activities, communication effectiveness will be reduced.

In the case of pattern 13 (low centralization, low formalization, high group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings to make decisions and coordinate tasks. Communication effectiveness will be increased when a group has enough formal meetings to discuss task -related problem. In this case, members are likely to experience a conflict among the high level of group conformity, the low level of centralization.

In the case of pattern 14 (high centralization, low formalization, low group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings to coordinate tasks and participate in decision-making process. Communication effectiveness will be increased when a group has enough formal meetings to discuss task- related problem. In this case, members are likely to experience a conflict between the high level of centralization and the low level of group conformity.

In the case of pattern 15 (low centralization, high formalization, low group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings to make decisions but few informal meetings.

Communication effectiveness will be increased when a group has enough formal meetings to discuss task related problems.

In the case of pattern 16 (low centralization, low formalization, low group conformity, and low closeness of interpersonal relationship), members will have frequent formal meetings to make decisions and coordinate tasks, but few informal meetings. Communication effectiveness will be increased when a group has enough formal meetings to discuss task-related problems.

RESEARCH QUESTIONS AND HYPOTHESES

Based on the contingency table just discussed, this study will test the following hypotheses:

H 1) The level of communication effectiveness of a group that engages in communication practices which fit the requirements of organizational structure and group relational climate will be higher than that of a group whose communication practices do not fit the requirements of organizational structure and group relational climate.

H 2) The level of group performance of a group that engages in communication practices which fit the requirements of organizational structure and group relational climate will be higher than that of a group whose communication

practices do not fit the requirements of organizational structure and group relational climate.

H3) The level of communication effectiveness of a group that does not have conflicting contingencies will be higher than that of a group that has conflicting contingencies.

CHAPTER IV

RESEARCH METHODOLOGY

This chapter will discuss the research methods used in this study. It includes a justification for the methods that were used, including a discussion of why a survey was used to gather the data, a description of the participants involved and the criteria used to select them, procedures, and a description of the measures included in the survey. Finally, the last section of this chapter describes the types of analytical techniques that were used to test the hypotheses posed in this study.

OVERVIEW

This study employed a survey design to gather data for testing the contingency model and related hypotheses. A survey design was selected for several reasons. First, a survey is flexible in the sense that a wide range of information can be collected (Toothaker, 1996; Visser, Krosnick, & Lavrakas, 2000). This study investigates the characteristics of organizational structure and group relational climate that are related to communication effectiveness. A survey approach will enable us to capture the general perceptions of team members in Korean organizations on a range of variable. Second, a survey is an efficient way of collecting information from a large number of respondents (Toothaker, 1996; Visser et al., 2000). Third, a properly designed standardized survey is relatively free from several types of errors and statistical techniques

can be used to determine validity, reliability, and statistical significance (Toothaker, 1996). Fourth, a survey allowed me to collect this data in Korea without necessitating a lengthy stay there, which would have been prohibitive in terms of time and cost.

PROCEDURES

Participants of this study were members of work groups in a range of Korean organizations. Subjects were recruited using the snow-ball sampling method. The researcher recruited possible respondents through a personal network. If a respondent agreed to participate, he or she was asked to request participation from the other team members. Only if most members agreed to participate was a team included in the study.

The teams that agreed to participate were then mailed a pack of questionnaires. The cover letter in the packet gave participants basic instructions and indicated that the confidentiality of respondents would be ensured. The team filled out the questionnaires and the initial contact person returned them to the researcher. The researcher also asked the initial contact person to recommend additional teams that could participate in this study. This procedure was repeated until the sufficient number of samples was fulfilled.

INSTRUMENTS

The scales consisted of 62 items using a 7-point Likert response scales. This study utilizes questionnaire items developed in previous studies insofar as they

were available and were adaptable to the Korean context. Instruments for each major construct will be discussed in turn.

In order to measure the degree of centralization in organizations, the following nine items were employed: 1) Our team members take part in task decisions almost all the time, if the task is related to their jobs (Konrad & Brown, 1993), 2) Our team members have a great deal of freedom in conducting our task activities (Konrad & Brown, 1993), 3) Our supervisor is inclined to accept the opinions of the work group in important decisions about job-related matters (Mohr, 1971), 4) Our team members are encouraged to make their own decisions (Hage & Aiken, 1967), 5) There can be little action taken here until a supervisor approves a decision (Hage & Aiken, 1967), 6) Even small matters have to be referred to someone higher up for a final answer (Hage & Aiken, 1967), and 7) Everybody here has an equal chance to have a say in the decisions which concern our job (Tayeb, 1988).

Formalization was measured using the following five items: 1) Whatever situation arises, we have procedures to follow in dealing with it (Aiken & Hage, 1968), 2) Our team keeps a written record of everyone's job performance (Aiken & Hage, 1968), 3) Rules and regulations of our teams are somewhat vague and ambiguous (Insel & Moos, 1986), 4) Our team members are often confused about exactly what they are supposed to do (Hackman, 1975), and 5) We are to follow strict operating procedures at all times (Aiken & Hage, 1968).

Group relational climate was measured using two variables: closeness and group conformity. In order to measure the level of closeness among group members, the following five items were employed: 1) We often spend time together after the office hours (Wheless, 1978), 2) We willingly tell a great deal of our personal affairs, honestly and fully (in depth) to our group members (Wheless, 1978), 3) We seldom interact and communicate with our group members (Wheless, 1978), 4) We feel very close to our group members (Wheless, 1978), and 5) We rarely know the other members' private life (Wheless, 1978).

In order to measure the degree of group conformity, the following 7 items were employed: 1) We usually change individual opinions or behavior to fit into the whole team (Tayeb, 1988), 2) Doing things in a different way is valued in our team (Insel & Moos, 1986), 3) We usually sacrifice individual self-interest for the benefit of our team (Triandis, 1995), 4) It is very important us to maintain team harmony for our team (Triandis, 1995), 5) We feel uncomfortable going against the view of majority (Tayeb, 1988), 6) We tend to consider the whole team first, not the individual (Tayeb, 1988), and 7) We usually follow decisions the team made in spite of differences we have (Triandis, 1995).

With respect to communication practices, the questionnaire items ask the respondent to describe the type and frequency of the meetings their teams currently have. Scales from Penngings (1975) and Cho (2003) were modified and employed.

The following items asked the respondent to describe the features of their current team meetings: 1) Our team has meetings related to its task ____ times in a day, 2) Our team has meetings related to its task ____ times in a week, 3) Our team has meetings related to its task ____ times in a month, 4) Our team has informal meetings for team work after office hours ____ times a week, 5) Our team has small group activities for social activities ____ times in a week, and 6) Our team has informal meetings to celebrate personal events _____ times in a week.

With respect to communication effectiveness, three variables were measured: the level of open communication in the group, the group's level of mutual understanding, and group performance. Both members and the group leader were asked to respond to these scales, yielding both "insider" and "outsider" viewpoints.

In order to measure the degree of open communication among team members, the following 9 items were employed: 1) We have a great deal of freedom to express individual opinions as we like (Insel & Moos, 1986), 2) We usually talk freely about what we think and feel (Insel & Moos, 1986), 3) We generally feel free to ask for a raise (Insel & Moos, 1986), 4) We often talk to each other about our personal problems (Insel & Moos, 1986), 5) We are not afraid to disagree with our boss if we think he/she is wrong in a particular case (Tayeb, 1988), 6) We are prepared to argue openly with people with higher positions (Tayeb, 1988), 7) Our team leader listens very carefully to members'

opinions (Goldhaber, Rogers, Lesniak, & Porter, 1979), 8) There are enough opportunities to discuss various ideas and opinions about overall task processes with supervisors (Goldhaber, et al., 1979), 9) Our team has a climate in which diverse perspectives are valued (Goldhaber, et al., 1979).

With respect to the degree of mutual understanding among team members, the following 10 items were employed: 1) Most team members are honest and can be trusted (Tayeb, 1988), 2) Most of my team members know each other very personally and understand each one's circumstances related to task and personal issues (Tayeb, 1988), 3) Our team members here can be trusted to provide management with correct information about what they are doing (Tayeb, 1988), 4) Our team leader understands members job needs (Goldhaber, et al., 1979), 5) We do not really trust our team leader (Wheeless, 1978), 6) Our team leader does not really trust team members (Wheeless, 1978), 7) We know what other members current task are pretty well (Wheeless, 1978), 8) We are willing to help other members whenever help is needed (Wheeless, 1978), 9) Whenever another member has some difficulties in performing the task, we can understand what the difficulties are pretty well (Wheeless, 1978).

In order to measure the level of task performance, the following three items were employed to measure members' perceived performance level of their group; 1) Our team usually achieve 100% of its assigned tasks in a week (Langfred, 1998), 2) Compared to other groups with similar work and objectives, our team perform tasks superiorly (Langfred, 1998), 3) Compared to other

groups with similar work and objectives, our team attains specific goals that have been set superiorly (Langfred, 1998).

Evidence for the validity and reliabilities of questionnaire items employed in this study was available from previous research (e.g., Konrad & Brown, 1993; Mohr, 1971; Pennings, 1975; (Wheeless, Wheeless, & Baus, 1984).

At the end of the survey, the respondents were asked to provide some demographic information on themselves and their teams. Participants were asked questions about their position, their team and the organization for which they worked. Appendix A provides the full description of the survey employed in this study.

Since all questionnaire items were originally developed by Westerners for Westerners, all items were reinterpreted and translated for Koreans in order to achieve cross-cultural equivalence and validity. All items were examined by the researcher to check the adequacy of meanings and contexts for respondents. They were also tested on Korean subject prior to conducting survey.

ANALYSES

Survey responses were first analyzed using descriptive statistics to help summarize the data. Two levels of analysis employed in this study; individual and group. In order to assess the validity and reliability of the questionnaire items, preliminary analysis was conducted prior to hypotheses testing.

Preliminary Analyses

Four different preliminary analyses were conducted: 1) Reliability analysis, 2) Factor analysis and 3) Intraclass correlation coefficients (ICC).

First, reliability coefficients were computed to measure the extent to which an item will yield the same score when administered to different times, locations, or populations (Toothaker, 1996). Cronbach's alphas, the most common form of reliability coefficients for continuous data were calculated for each scale.

Second, two different factor analyses were conducted in this study. Factor analysis is used to uncover the latent structure (dimensions) of a set of variables. In this study, factor analysis was employed in order to validate scales by demonstrating that their constituent items load on the same factor, and to redefine scales by dropping items which cross-loaded on more than one factor.

Exploratory factor analysis was conducted to uncover the underlying structure of a relatively large set of variables. Even though the scales employed in this study have been shown in prior research to be valid and reliable, it is necessary to examine them, when they are used in contexts different from the original application. Based on the results of exploratory factor analysis, the items with lower factor loadings were deleted.

Following the exploratory factor analysis, confirmatory factor analysis was employed with selected scales to determine if the number of factors and the loadings of measured variables on them conformed to what was expected on the basis of pre-established theory. Indicator variables were selected on the basis of

prior theory and factor analysis is used to see if they load as predicted on the expected number of factors.

Third, intraclass correlation coefficients (ICC) of each team on each variable were calculated to measure group-level properties. Because the unit of analysis of this study is a workgroup, it is important to ascertain the degree of consistency there is among group members' responses. In the analysis of group-level data, a key concern is the need to determine how much of a variable's total variance is due to the group-level properties of the data. This issue is important because the amount of the total variance that is due to the group-level properties of the data has theoretical implications about underlying group processes. A significant ICC on a variable suggests that it is representative of a group-level property (Bliese & Halverson, 1996).

Testing of Contingency Model and Hypotheses

Once a model of what constitutes fits and non-fits between structure and contingency has been created, it has to be validated empirically. This involves two methodological issues: causal relationships and measurement of the relationship between fit and performance. With respect to these issues, this study employed 1) a linear regression analysis and 2) a two-independent sample t-test

First, in order to test –“fits”- the mean scores of each team were categorized as high values or low values on the contingency variables with median-split. If a team had the fitting contingency pattern predicted in Chapter

III, the team was classified as “fitting”. If a team had the different contingency pattern, the team was classified as “nonfitting”. It was also determined as to whether a team had conflicting contingencies –as defined at Chapter III.

The contingency model was tested and hypotheses 1 and 2 evaluated by conducting a two-independent samples t-test comparing fitting and nonfitting groups in terms of group communication effectiveness and group performance.

The further explore the nature of relationships among the contingency, response, and performance variables conducted multiple linear regression analysis. A linear regression analysis was conducted to investigate the relationships among contingency variables and response variables and their ability to predict the performance variables. We expected there to be relationships among these variables based on the following rationale: If there was fit between contingencies and responses that leads to higher performance, then groups would tend to react in such a way to increase fit in order to be effective. This, in turn would result in an association between the contingency variables and the responses variables and also to the ability to predict outcomes based on contingency and response variables. We expect that “fit” groups and “non-fit” groups differ from each other with respect to the relationships among these variables.

To test hypothesis 3, we tested for differences between groups, which had conflicting contingencies, and those that did using a two-independent samples t-test.

CHAPTER V

RESULTS

The purpose of this chapter is to report the results of the various analyses performed in this study. First, demographic characteristics of the sample are reported to provide some background information regarding the respondents. Second, the results of preliminary analyses, including an analysis of the instruments that were used and an analysis of group-level properties are presented. Next, each hypothesis tested and evaluated.

SAMPLE CHARACTERISTICS

Four hundred twenty-three respondents completed the survey, with four hundred nine responses deemed useable. All respondents were current members of workgroups in Korean organizations. The respondents were from 88 workgroups in 40 different organizations. Among the responses, 14 responses (3 workgroups from 1 organization) were dropped because of incomplete answers. The respondents included 246 males (60%) and 197 females (40%). The respondents' ages ranged from 20 to 46 with a mean of 36.7 years. The average respondent had been with their workgroup for 3.6 years, with an average time in their organization of 6 years.

The respondents came from variety of organizations, as shown in Table 3. The median number of employees in the respondents' organizations was 250. Twenty percent of the responses came from organizations of less than 50

TABLE 3
Breakdown of Respondents' Organizations

Sector	Number of organizations (%)	Number of Groups (%)	Number of respondents (%)
Research	7 (18.9%)	16 (18.9%)	74 (18.1%)
Manufacturing	6 (16.2%)	27 (31.8%)	85 (20.8%)
Consulting	5 (13.5%)	9 (10.6%)	59 (14.4%)
Banking	4 (10.8%)	7 (8.2%)	43 (10.58%)
Health care	4 (10.8%)	7 (8.2%)	38 (9.3%)
Education	2 (5.4%)	6 (7.1%)	32 (7.8%)
Insurance	2 (5.4%)	4 (4.7%)	24 (5.9%)
Technology	1 (2.7%)	2 (2.4%)	14 (3.4%)
Government	1 (2.7%)	2 (2.4%)	12 (2.9%)
Legal	1 (2.7%)	1 (1.2%)	7 (1.7%)
Retail	1 (2.7%)	1 (1.2%)	6 (1.5%)
NGO	1 (2.7%)	1 (1.2%)	6 (1.5%)
Service	1 (2.7%)	1 (1.2%)	5 (1.2%)
Medical institute	1 (2.7%)	1 (1.2%)	4 (1.0%)
	37 (100%)	85(100%)	409(100%)

members, 20 percent from 51-100, 20 percent from 101-200, 20 percent from 201-500, and 20 percent came from organizations with more than 500 members.

The workgroups ranged from 2 to 10 members in size with a mean of 4.8. The tasks of work groups were quite diverse from research & development to real estate dealers. The functions of respondents' groups are listed in Table 4.

PRELIMINARY ANALYSES

The purpose of the preliminary analyses is to assess the reliability and validity of the scales that were used and to ascertain whether we can treat the variables as group-level properties. This section will present the results of 1) reliability analysis, 2) factor analysis, and 3) intraclass correlation analysis for interrater reliability within workgroups.

Cronbach's alpha was employed to assess reliability of the scales described in Chapter VI. Factor analysis was conducted to assess the construct validity of the scales. Intraclass correlation coefficients of each workgroup on the variable were calculated to examine the degree to which members of workgroups converged in their responses, indicating where the variable should be considered a group or individual level property.

Reliability Analysis

The reliability of each variable was calculated twice based on the 409 responses received, once for the original scales with all items and then for

TABLE 4
Breakdown of Functions of Respondents' Groups

Type	Number of workgroups (%)	Number of respondents (%)
Research &		
Development	18 (21.2%)	78 (19.1%)
Sales	14 (16.5%)	80 (19.6%)
Accounting	8 (9.4%)	46 (11.2%)
Consulting	8 (9.4%)	42 (10.3%)
Marketing	7 (8.2%)	35 (8.6%)
Planning	5 (5.9%)	24 (5.9%)
Administration	5 (5.9%)	22 (5.4%)
Customer service	4 (4.7%)	20 (4.9%)
Human resource	3 (3.5%)	12(2.9%)
Product development	3 (3.5%)	9 (2.2%)
Retail service	2 (2.4%)	8 (2.0%)
Designer	2 (2.4%)	7 (1.7%)
Web design	1 (1.2%)	5 (1.2%)
High tech support	1 (1.2%)	5 (1.2%)
Teaching	1 (1.2%)	5 (1.2%)
Physician	1 (1.2%)	4 (1.0 %)
Legal	1 (1.2%)	4 (1.0%)
Real estate dealer	1 (1.2%)	3 (0.7%)
	85 (100%)	409 (100%)

reduced scales with items that did not load cleanly in the exploratory factor analysis removed. The reliability of the original scales is presented in Table 5. The reliabilities were well above .70 for all variables except the construct of group conformity. Based on the results of exploratory factor analysis, the low reliability of group conformity was corrected by dropping items that had low factor loadings in the exploratory factor analysis. A few items were also dropped from other scales based on the exploratory factor analysis, because those items loaded on factors other than the original construct. The reliabilities of corrected scales are presented in the table on p. 86.

TABLE 5
Reliabilities of Original Scales (N=409)

Variables	Mean score	Standard. Deviation	Reliability
Centralization	3.24	1.34	.76
Formalization	4.18	1.46	.74
Group conformity	4.51	2.13	.57
Closeness	4.49	0.89	.81
Open communication	4.90	1.02	.92
Mutual understanding	5.15	1.21	.92
Perceived performance	4.96	1.37	.80

Exploratory Factor Analysis

The scales from the survey were analyzed using exploratory factor analysis to assess whether the scales measured single factors as the researcher assumed. For each factor analysis conducted in this section, the method of a varimax solution was employed, because this method yields results which make it as easy as possible to identify each variable with a single factor. This is the most common rotation option (Fabrigar, Wegener, MacCallum, & Strahan, (1999).

For centralization, two factors were extracted. All but one of the items used to measure the degree of centralization loaded above .600 on a single factor as expected. This item - “Our supervisor is inclined to accept the opinions of the workgroup in important decisions about job-related matters” – loaded .228 on the main factor and .295 on the second factor. The total variance in the items was accounted by the factor solution was 59.44%. It seems that one reason for this low factor loading was that it was the only item of the seven questions that measured attitudes about the group’s leader. Thus, this item was dropped.

For formalization, one component was extracted as expected. The five items used to measure the degree of formalization all loaded above .600 on a single factor. The total variance in the items was accounted by the factor solution was 69.80%.

For group conformity, two components were extracted. Among the seven items used to measure the degree of group conformity, five items loaded above

.600 on a first factor. The two items that did not load on the scale's main factor – “It is very important us to maintain workgroup harmony for our workgroup” and “We feel uncomfortable going against the view of majority” – had loadings of .312 and .213. These two items also did not load on the second factor above .600. They had loadings of .482 and .513. It is likely that the low reliability of the original scales ($\alpha = .57$, $M = 4.51$, $s = 2.13$) was due to these items. These two items were dropped. The total variance in the items was accounted by the factor solution was 50.46%.

For closeness, one component was extracted. Among the five items used to measure degree of closeness, four loaded above .600 on a single factor. The fifth item - “We rarely know the other members' private life” – loaded .214 and was dropped. The total variance in the items was accounted by the factor solution was 54.23%.

A second set of scales used in this research involved the performance of the workgroups. Four variables related to performance were investigated in this study: open communication, mutual understanding, and performance as judged by both the members' and leaders' of the workgroups.

For open communication, two components were extracted. Among the nine items that were used to measure the degree of open communication among workgroup members, 7 items loaded over .600 on a main factor. Two items - “We often talk to each other about our personal problems” and “Our workgroup has a climate in which diverse perspectives are valued” – did not load above

.400 on the main factor. The item- “We often talk to each other about our personal problems “ - had loading of .432 on the second factor. The item –“Our workgroup has a climate in which diverse perspectives are valued”- had loading of .723 on the second factor. Given this result, this item was likely related to other construct than the expected construct. These two items were dropped. The total variance in the items was accounted by the factor solution was 64.79%.

For mutual understanding, two components were extracted. Among the ten items used to measure the degree of mutual understanding, seven items loaded over .600 on a main factor. Three items - “We really trust our workgroup leader”, “Our workgroup leader does not really trust workgroup members”, and “We willingly help other members whenever the help is needed” - did not load above .400 on the main factor. Two items - “We really trust our workgroup leader” and - “We willingly help other members whenever the help is needed” – did not load above on the second factor. The item -“Our workgroup leader does not really trust workgroup members” had loading of .655 on the second factor. This item was likely related to another construct than the construct expected, that may be related to a leader’s quality. The total variance in the items was accounted by the factor solution was 58.26%.

For members’ perceived performance, three items used to measure the level of task performance all loaded over .600 on a single factor without leaders’ scores. The total variance in the items was accounted by the factor solution was 64.79%. With leaders’ scores, three items used to measure the level of task

performance all loaded over .600 on a single factor with response. The total variance in the items was accounted by the factor solution was 71.15%.

Give the results of the exploratory factor analysis, seven items which had low factor loadings on the scale's main factor were dropped. Table 6 presents the mean score, standard deviation, and reliability of the new scales resulting from dropping the seven items.

TABLE 6
Reliabilities of New Scales (N=409)

Variables	Mean score	Standard. Deviation	Reliability
Centralization	2.87	1.24	.78
Formalization	4.18	1.46	.74
Group conformity	4.23	1.98	.61
Closeness	4.52	0.86	.83
Open communication	5.03	1.14	.87
Mutual understanding	5.26	1.46	.85
Perceived performance	4.96	1.37	.80

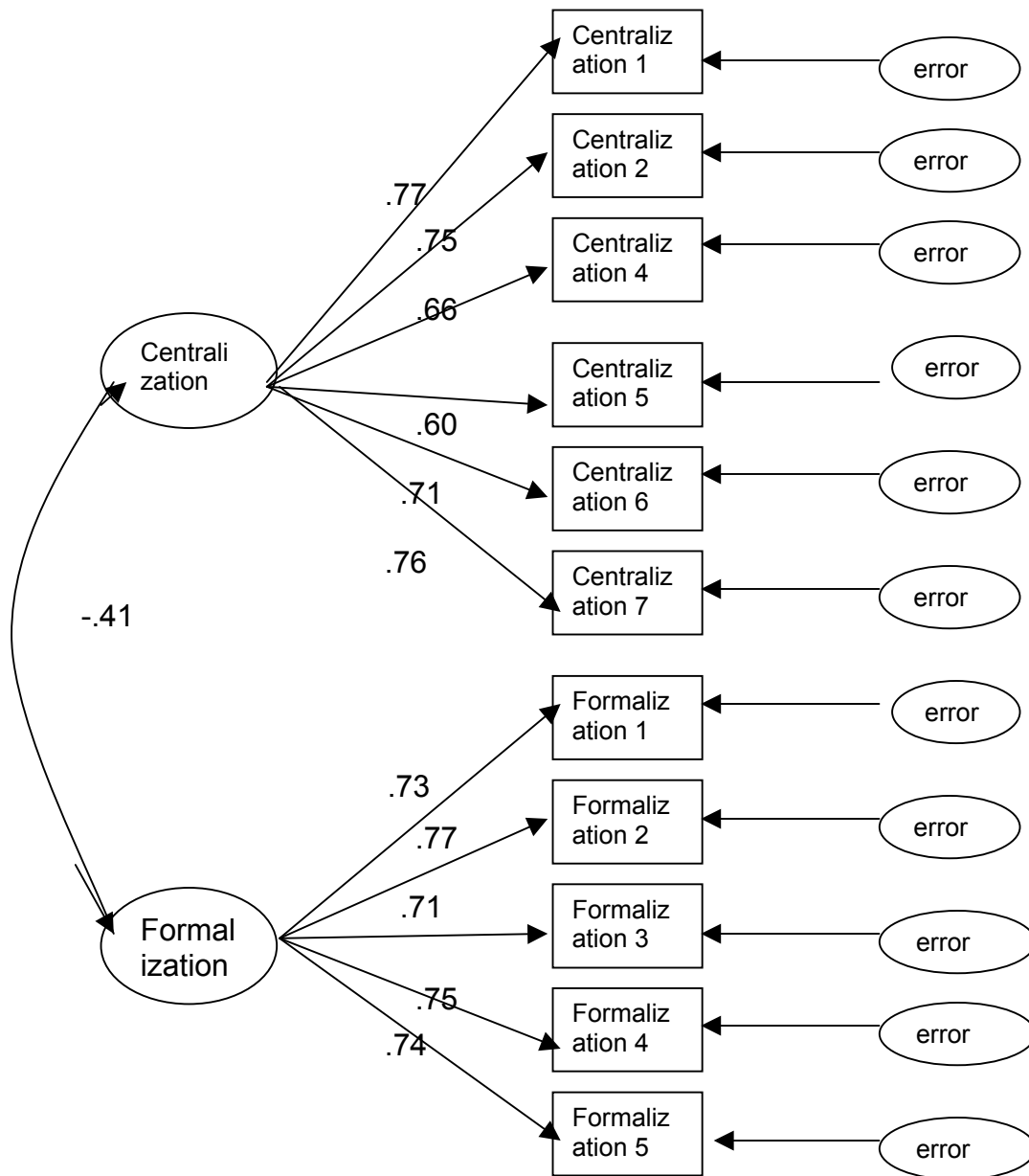
Confirmatory Factor Analysis

Confirmatory factor analysis was employed to determine if the number of factors and the loadings of the items on the scales conformed to what was expected on the basis of pre-established theory. The first confirmatory factor analysis was conducted to test the measurement model for organizational structure. The chi-square value of this model was 33.67 (df=19), p-value .02 and RMSEA (Root Mean Square Error of Approximation) was .04.

The chi-square value of model fit for organizational structure was less than twice of the degrees of freedom and the RMSEA value was below the .06 recommended by Hu and Bentler (1999) as an upper boundary, so we can conclude that the proposed measurement model fit. Figure 2 illustrates the path coefficients of each item on the factor.

The second confirmatory factor analysis was conducted to test a measurement model for group relational climate. The chi-square test indicated that the proposed model did not fit well. The chi-square value was 157.80 (df=26), p-value was .00, and RMSEA was .112. The standardized path coefficient of the item-“ Doing things in a different way is valued in our workgroup” had a negative coefficient ($r = -.209$). Without this item, the chi-square value was 47.22 (df=19, p-value=.0003) and RMSEA was .60. Figure 3 illustrates the path coefficients of each item on the factors in the model. The model modification indices² indicated that two items led to lack of fit. Table 7 presents the model modification indices for this model.

FIGURE 2



Hypothesized factor structure for organizational structure variables

TABLE 7
Model Modification Indices for Group Relational Climate Variables

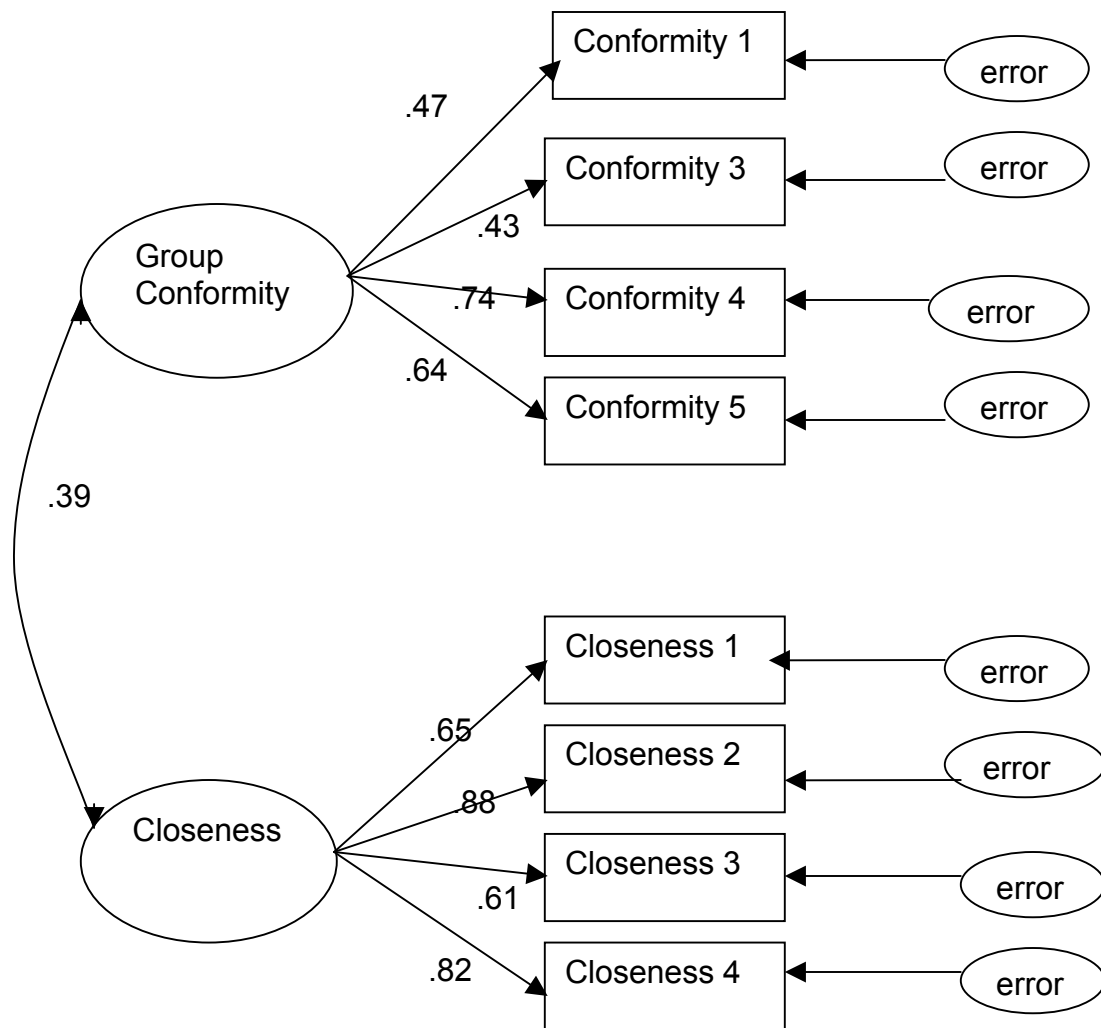
	M.I. *	E.P.C.*	Std E.P.C.	Std YX E.P.C
Group conformity	12.27	0.42	0.25	-.16
BY Closeness 2				
Group conformity	14.19	.39	.23	.18
BY Closeness 4				

*M.I. Raw modification index value

*E.P.C. Understandardized expected parameter change

According to the model modification indices, two items used to measure the level of closeness are correlated with the construct of group conformity. If we change the model to include these correlations, the model achieves better fit. The chi-square value of the modified model was 18.80 (df=16, p-value = .28) and the RMSEA was .021 indicating good fit.

The third confirmatory factor analysis was conducted to test a measurement model of communication effectiveness. The initial test indicated that the proposed model did not fit well. The chi-square value was 613.091 (df=76), p-value was .00 and RMSEA was .132. Figure 4 illustrates the path coefficients of each item on the factors for the model of communication effectiveness. The model modification indices suggested that several

FIGURE 3

Hypothesized factor structure for group relational climate variables

TABLE 8
Model Modification Indices for Communication Effectiveness Variables

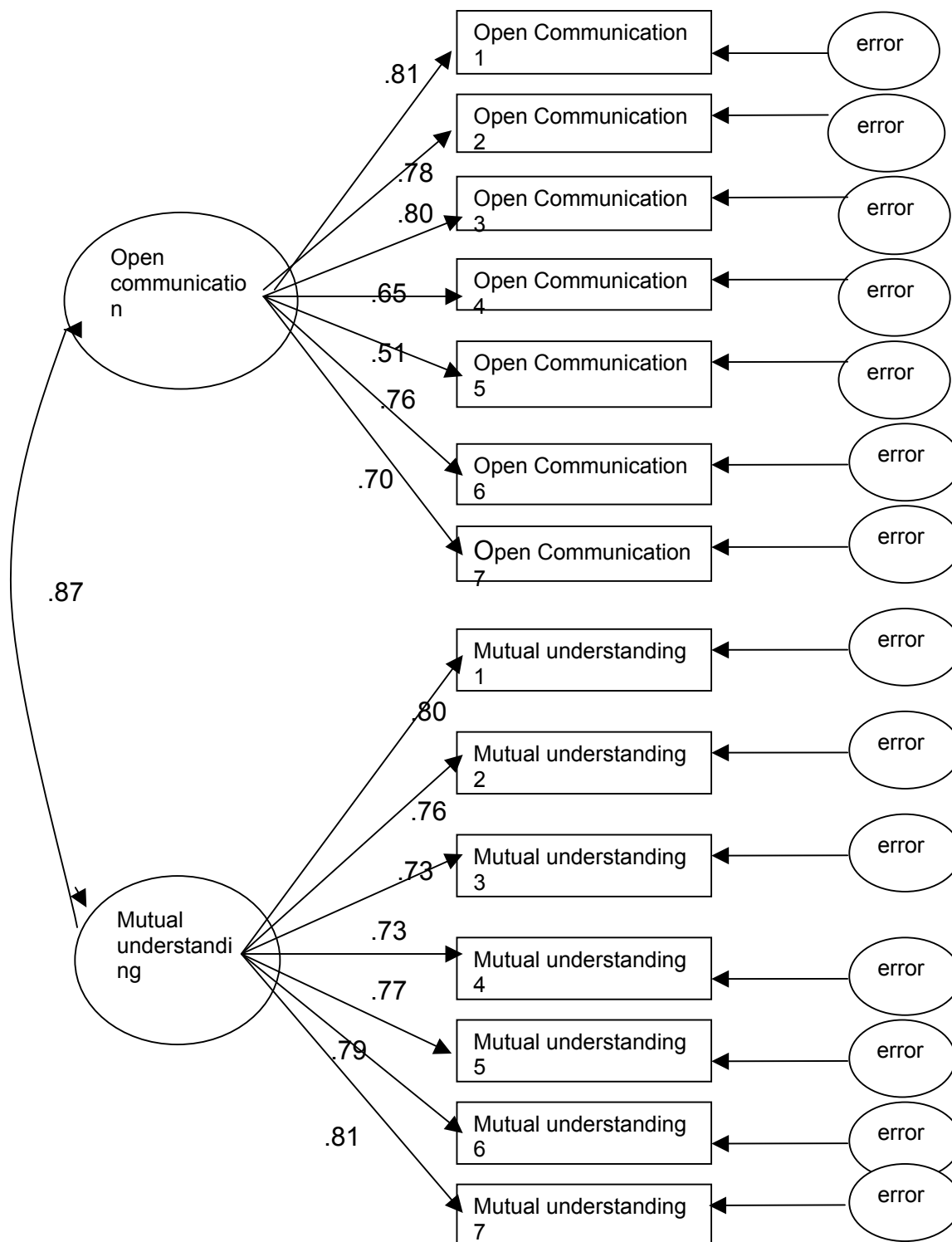
	M.I. *	E.P.C.*	Std E.P.C.	Std YX E.P.C
Mutual understanding 7	80.99	0.30	0.30	0.19
WITH Mutual understanding 6				
Open Communication 6	68.26	0.57	0.57	0.24
WITH Open Communication 5				
Open Communication 7	64.04	0.45	0.45	0.20
WITH Open Communication 6				
Mutual understanding BY	39.42	0.93	0.94	0.67
Open Communication 4				
Mutual understanding 5	20.14	0.17	0.17	0.10
WITH Mutual understanding 2				

*M.I. Raw modification index value

*E.P.C. Understandardized expected parameter change

modification in this model. Table 8 presents the model modification indices for this model.

For the modified model, which allowed to add the correlations of the items as the model modification indicated, the chi-square value was 105.96 (df=58, p-value = .0001) and RMSEA was .045. The chi-square value of model fit was less than twice of the degrees of freedom and the RMSEA value was below the suggested criterion of .06, so we can conclude that the modified model fit.

FIGURE 4

Hypothesized factor structure for communication effectiveness variables

Intraclass Correlation Analysis

After refining the scales through reliability and exploratory factor analysis, intraclass correlation coefficients (ICC) of each workgroup on the variables were computed. Intraclass correlation coefficients were employed to examine the degree to which members of workgroups agreed in their ratings of the group. The unit of this study is a workgroup, not an individual. Thus, it is important to assess whether responses of members of a workgroup represent group-level properties, rather than individual perceptions unrelated to other members. In general, ICC is positive when between groups effects are very large relative to the within-groups effects. ICC is 0 when within-groups variance equals between-groups variance, indicative of that the grouping variable has no effect. ICC is negative when the within-groups variance exceeds the between-groups variance (Shrout & Fleiss, 1979).

For this analysis, the workgroup leaders' scores were excluded, since leaders were assumed to have different perspectives toward their workgroup compared to workgroup members' perspectives. The scores of leaders' evaluation of their workgroups were utilized as an "objective" performance score. The complete ICCs for the 85 workgroups are in Appendix B.

Among the 85 workgroups in the entire sample, 33 workgroups (39%) had significant ICCs on four or more of the variables and no negative ICC scores. The responses of these workgroups were assumed to represent a high level of agreement and to clearly index of a group level-property on the constructs

investigated in this study. Seventeen workgroups (20%) had significant ICCs on more than four variables, but at least one negative ICC score. Twenty-four workgroups (28%) had fewer than four significant ICCs on the constructs and there were therefore doubts concerning whether aggregating the members' score would yield a reliable source of a group-level property. The ICCs of 11 workgroups (13%) which had only two members were dropped from the analysis, since the number of workgroup members was too small to allow calculation of the ICC and it was unclear this few responses gave a valid representation of the group variables, even if they were consistent.

Given this result, the 74 workgroups were categorized into three subsets: a) workgroups in which we could be confident that aggregate of member responses on the variable tapped group-level properties, b) workgroups in which we had some confidence that the aggregate of members responses on the variables tapped group-level properties, and c) workgroups in which we had low levels of confidence that the aggregate of member responses on the variable tapped group-level properties.

In testing the hypotheses of this study we conducted tests for three different sets of workgroups: 1) Set 1: only those groups in set (a), 2) Set 2: groups in sets (a) and (b); and 3) Set 3: all 74 workgroups, excluding those with only two responses. This was done in order to balance measurement issues with sample size considerations. We expected the groups in Set 1 to provide the cleanest test of the model since the measure for these groups were clearly at the group

level. The groups in Set 2 provided somewhat weaker measurement for group level constructs, but larger sample size and therefore enhanced statistical power. Set 3 provided the largest sample for hypothesis testing purposes, but could be questioned on the grounds that constructs were not at all measured at the appropriate level of analysis.

ASSESSMENT OF THE CONTINGENCY MODEL

This section will report a test of the overall contingency model. As described in Chapter IV, this test proceeds in two steps: 1) Identify those workgroups whose response patterns in terms of communication behavior fits the demands of the contingency variables of organizational structure and group relational climate and those whose responses do not fit, 2) Test for differences between the fitting workgroups and nonfitting workgroups in terms of performance variables of communication effectiveness and group performance. If the fitting workgroups outperform the nonfitting workgroups, then the contingency model is supported.

Of the 85 workgroups in the original samples, 11 were excluded from this test, because they had only two members, which we deemed too small a sample size. The contingency model test was run for all three sets of workgroups identified in the previous section.

In order to classify the groups as fitting and nonfitting a three step procedures was followed. First, the aggregate mean score of each workgroups on all variables was computed. Second, the mean scores of each workgroup on

the contingency and response variable were categorized into “high” and “low” values using a median split on each variable. Table 9 presents the median scores for the variables. The mean scores of each workgroup on the variables are in Appendix C. Third, groups were classified as fitting or nonfitting based on whether their pattern of high and low values on the responses variables were consistent with the “demands” of the contingency variables, as indicated by the

TABLE 9
Median Scores of Variables (N = 74)

Variables	Median	Minimum	Maximum
Centralization	2.75	1.67	4.58
Formalization	4.08	2.18	5.69
Group conformity	4.25	3.00	5.53
Closeness	4.64	2.25	6.68
Frequency of formal meetings	4	1	40
Frequency of informal meetings	4	0	12
Open Communication	5.09	2.81	6.56
Mutual understandings	5.3	3.50	6.63
Members' perceived performance	5.03	3.17	6.00
Leaders' evaluation	5.0	3.00	6.67

pattern of high and low values of the contingencies. The fitting patterns were identified in Chapter III, Tables 1 and 2.

If a group had fit and a high level of performance variables, this would indicate support for the predictions of the contingency model. Otherwise, the contingency prediction was not supported. If a group did not fit, and had a low level of performance variables, the contingency prediction was supported. Otherwise, the contingency prediction was not supported. The contingency patterns of the workgroups and the resulting classification into fitting and nonfitting categories and predictions are in Appendix D and Appendix E.

Among the 74 workgroups in the entire sample of workgroups (Set 3), 26 (35%) exhibited fit of responses to contingency patterns and 47 (65%) were nonfitting. Among the 26 “fitting” workgroups, 24 had high levels of communication effectiveness and performance level, while 29 (62%) out of 47 nonfitting workgroups had low levels of the performance variables. Thus, 53 workgroups (70%) were consistent with the contingency predictions. Table 10 summarizes the relationship between fit and performance for the 74 groups.

Among the 74 workgroups, 32 workgroups (43%) had conflicting contingencies, which were opposing requirements posed by the contingency variables. These groups will be considered in more detail in a later section.

Differences in performance between fitting workgroups and nonfitting workgroups were tested with two-independent samples t-tests. Table 11 summarizes the results of the tests for the three sets. As the table indicates,

TABLE 10
Relationship between Fit and Performance

			Fit		
			Yes	No	Total
			Number of workgroups (%)	Number of workgroups (%)	Number of workgroups (%)
Performance Level	High	Number of workgroups (%)	24 (32%)	29 (38%)	53 (70%)
	Low	Number of workgroups (%)	2 (4%)	19 (26%)	21(30%)
Total		Number of workgroups (%)	26 (36%)	48 (64%)	74 (100%)

there were significant differences in performance between fitting and nonfitting workgroups on all four outcomes in the expected direction.

Hypothesis 1 posited that the level of communication effectiveness of a group that has communication practices which fit the requirements of organizational structure and group relational climate would be higher than that of a group that has communication practices which do not fit the requirements of organizational structure and group relational climate. For Set 3, which included all 74 work groups, the mean score of open communication of fitting groups ($M=5.44$, s

=.60) was significantly higher than the mean of nonfitting groups (\underline{M} =4.86, \underline{s} =.73) [$t(72)=3.48$, $p < .05$, two-tailed]. Also, the mean score of mutual understanding of the fitting groups (\underline{M} =5.54, \underline{s} =. 56) was significantly higher than the mean of the nonfitting groups (\underline{M} =5.11, \underline{s} =.60), [$t(72)=2.93$, $p < .05$, two-tailed]. Similar results were obtained for workgroups Set 1 and Set 2. Therefore, Hypothesis 1 was supported by the results.

Hypothesis 2 posited that the level of group performance of a group that has communication practices which fit the requirements of organizational structure and group relational climate will be higher than that of a group that has communication practices which do not fit the requirements of organizational structure and group relational climate. For Set 3 of the workgroups, the mean of group performance as perceived by members of fitting groups (\underline{M} =5.32, \underline{s} =.44) was significantly higher than the mean of nonfitting groups (\underline{M} =4.79, \underline{s} =.56), [$t(72)=4.25$, $p < .05$, two-tailed]. Also, the mean score of leaders' evaluations of performance for fitting groups (\underline{M} =5.44, \underline{s} =.66) was significantly higher than the mean for nonfitting groups (\underline{M} =4.73, \underline{s} = 1.02) [$t(43)=2.43$, $p < .05$, two-tailed]. Similar results were obtained for Set 1 and Set 2 of the workgroups. Hence Hypothesis 2 was supported by the results for both member's and leader's perceptions of group performance.

Relationships Among Variables in the Contingency Model

Multiple regression analyses² were conducted to identify and test for relationships between the contingency variables and response variables for the fitting groups and nonfitting groups. Only Set 3 of the groups, the entire sample

TABLE 11
Mean Differences between Fitting Workgroups and Nonfitting Workgroups

Variable	Fit groups		Non-fit groups		t	df
	Mean	Standard deviation	Mean	Standard deviation		
Set 1	N=16		N=17			
Open Communication	5.47	.56	4.46	.69	4.56*	31
Mutual understanding	5.58	.52	4.74	.72	3.77*	31
Members' perceived performance	5.42	.29	4.63	.51	5.36*	31
Leaders' evaluation	5.48	.75	4.25	.75	3.34*	16
Set 2	N=24		N=26			
Open Communication	5.40	.67	4.53	.64	4.92*	48
Mutual understanding	5.47	.59	4.86	.61	3.68*	48
Members' perceived performance	5.39	.33	4.75	.54	5.07*	48
Leaders' evaluation	5.50	.67	4.43	1.00	3.12*	24
Set 3	N=27		N=47			
Open Communication	5.44	.60	4.86	.73	3.48*	72
Mutual understanding	5.54	.56	5.11	.60	2.93*	72
Members' perceived performance	5.32	.44	4.79	.56	4.25*	72
Leaders' evaluation	5.44	.66	4.73	1.02	2.43*	43

*p<.05

TABLE 12

Correlations among the Variables (N=74)

	Centralization	Formalization	Group conformity	Closeness	Open communication	Mutual understanding	Members' perceived performance	Leaders' evaluation	Frequency of formal meetings	Frequency of informal meetings
Centralization	1									
Formalization	-.30*	1								
Group conformity	.10	-.02	1							
Closeness	-.34*	.44*	.06	1						
Open communication	-.68*	.11	-.16	.38*	1					
Mutual understanding	-.63*	.11	.01	.51*	.78*	1				
Members' perceived performance	-.43*	.30*	-.26*	.16	.38*	.31*	1			
Leaders' evaluation	-.13	.32*	.03	.02	.08	.08	.26	1		
Frequency of formal meetings	.56*	-.23	.08	.08	.04	.09	.02	.23	1	
Frequency of informal meetings	-.17	.30*	.22	.27*	.25*	.29*	-.05	.29	.14	1

* Correlation is significant at the 0.05 level (2-tailed).

TABLE 13

Summary of Multiple Regression Analysis for Variables Predicting Fitting and Nonfitting Groups' Formal Meetings

Variable	All groups (N=74)			Fitting groups (N=26)			Nonfitting groups (N=47)		
	β	Std. Error	Std. β	β	Std. Error	Std. β	β	Std. Error	Std. β
Centralization	.67	.26	.60*	.66	.12	.61*	.81	.27	.55*
Formalization	-.17	.15	-.19	-.22	.10	-.23*	-.11	.17	-.13
Group conformity	1.02	1.16	.07	.28	.15	.19	.01	.21	.00
Closeness	.53	1.04	.07	.18	.09	.22	.17	.15	.22
R ²	.01			.54			.36		
Adjusted R ²	-.04			.49			.24		
F	.20			12.64*			3.1		

*p < .05.

of 74, was used for this analysis. Correlations among the variables are reported in Table 12.

With respect to the frequency of formal meetings, the results of the regression yield different results for both fitting and nonfitting groups. In both cases, centralization was a highly significant predictor of the frequency of formal meetings. Formalization was negatively related to formal meetings in the fitting groups. Neither of the group relational climate variables was related to formal meetings. The regression explained a substantial amount of variance for the fitting groups and somewhat less for nonfitting groups. Table 13 presents the

TABLE 14

Summary of Multiple Regression Analysis for Variables Predicting Fitting and Nonfitting Groups' Informal Meetings

Variable	All groups (N=74)			Fitting groups (N = 26)			Nonfitting groups (N=47)		
	β	Std. Error	Std. β	β	Std. Error	Std. β	β	Std. Error	Std. β
Centralization	-.43	.60	-.85	.03	1.14	.00	-.91	.75	.19
Formalization	.89	.50	.22	-.82	.26	-.55*	.86	.65	.21
Group conformity	1.42	.69	.22	.76	.91	.14	1.78	.96	.27
Closeness	.46	.44	.13	2.38	.67	.61*	-.19	.57	-.05
R ²	.17			.51			.15		
Adjusted R ²	.11			.43			.09		
F	3.44*			5.8*			1.84		

*p < .05.

summary of this multiple regression analysis. With respect to the frequency of informal meetings, the level of closeness and formalization were highly significant predictors of informal meetings for fitting groups, explaining 50 % of the variance of formal meetings. Regarding nonfitting groups, none of the variables was a significant predictor. Table 14 summarizes the results of these regression analyses. It is also interesting to consider the differences in levels of contingency variables for the fitting and nonfitting groups.

TABLE 15
Mean Differences between Fitting Groups and Nonfitting Groups
for Contingency Variables

Variable	Fitting groups		Nonfitting groups		t	df
	M	SD	M	SD		
Set 1	N=16		N=17			
Centralization	2.55	.46	3.49	.55	-5.25*	31
Formalization	4.26	.73	3.80	.59	1.96	31
Group conformity	4.35	.55	4.21	.37	.86	31
Closeness	4.99	.54	4.14	.82	3.45*	31
Set 2	N=24		N=26			
Centralization	2.57	.40	3.34	.60	-5.32*	48
Formalization	4.33	.62	3.82	.67	2.78*	48
Group conformity	4.23	.53	4.27	.41	-.28	48
Closeness	4.98	.58	4.30	.75	3.51*	48
Set 3	N=27		N=47			
Centralization	2.59	.40	3.01	.68	-2.86*	72
Formalization	4.23	.71	3.87	.79	1.97	72
Group conformity	4.24	.51	4.18	.49	.49	72
Closeness	4.88	.77	4.43	.92	2.16*	43

*p < .05

TABLE 16
Mean Differences between Fitting Groups and Nonfitting Groups
for Formal and Informal Meetings

Variable	Fit groups		Non-fit groups		t	df
	M	SD	M	SD		
Set 1	N=16		N=17			
Formal meeting	10.19	8.35	8.24	5.15	.81	31
Informal meeting	5.25	3.06	3.53	3.12	1.59	31
Set 2	N=24		N=26			
Formal meeting	9.17	7.13	9.31	8.03	-.06	48
Informal meeting	5.17	2.92	4.54	3.37	.70	48
Set 3	N=27		N=47			
Formal meeting	9.52	6.90	6.98	6.59	1.56	72
Informal meeting	5.04	2.99	4.85	3.30	.34	72

*p <.05

Table 15 displays the means and results of t-tests between fitting and nonfitting groups for these variables. The results suggest that nonfitting groups are significantly more centralized than fitting groups, while fitting groups are closer than nonfitting groups.

With respect to communication practices, this study investigated the frequency of formal and informal meetings of respondents' groups. Regarding formal meetings, the median number was 4. The minimum of 1 (N=2) and the maximum of 30 (N=1). The group that reported the highest number of meetings per month was the clinical laboratory. Thirteen groups (17%) reported that they had 1-3 meetings per month. Forty-two (57%) reported that they had 4-8

meetings per month, 8 groups (11%) had 9-12 meetings, and 11 groups (15%) had over 15 meetings per month.

With respect to informal meetings, the median number was 4 per month. Eleven groups (15%) reported that they had no informal meetings, 40 groups (54%) had 3-4 informal meetings per month, 19 groups (26%) had 8-10 informal meetings per month and 7 groups (9%) had 10-12 informal meetings per month. There were no differences between fitting and nonfitting groups on either formal and or informal meetings for any of the 3 sets. Table 16 summarizes the results for formal and informal meetings.

EFFECTS OF CONFLICTING CONTINGENCIES

Hypothesis 3 posited that the level of communication effectiveness and group performance of workgroups that did not have conflicting contingencies would be higher than that of workgroups that had conflicting contingencies. The means of the two variables measuring communication effectiveness -open communication and mutual understanding – were compared for the groups which had conflicting contingencies (N = 32) and the groups which did not have conflicting contingencies (N =42) using a two-independent-samples t-test.

The mean score of open communication of conflicting contingency groups ($\bar{M}=5.11$, $\bar{s} =.67$) was not significantly higher than the mean for non-conflicting groups ($\bar{M}=5.1$, $\bar{s}=.80$). [$t(72)=.321$, $p > .05$, two-tailed]. Also, the mean score of mutual understanding of conflicting contingency groups ($\bar{M}=5.32$, $\bar{s} =.66$) was

not significantly higher than the mean of non-conflicting groups ($\underline{M}=5.22$, $\underline{s}=.59$). [$t(72)=.658$, $p > .05$, two-tailed].

Members' perceived performance and leaders' evaluation of group performance were compared for the conflicting contingency groups and the non-conflicting contingency groups with a two-independent-samples t-test. The mean score of members' perceived performance of conflicting contingency groups ($\underline{M}=4.8$, $\underline{s}=.56$) was not significantly different from the mean of non-conflicting groups ($\underline{M}=5.09$, $\underline{s}=.56$). [$t(72)=-1.09$, $p > .05$, two-tailed]. Also, the mean score of the leaders' evaluation of conflicting groups ($\underline{M}=5.03$, $\underline{s}=1.02$) was not significantly higher than the mean of non-conflicting contingency groups ($\underline{M}=4.92$, $\underline{s}=.94$). [$t(43)=-.385$, $p > .05$, two-tailed]. Hypothesis 3 must be rejected.

It is possible that conflicting contingencies have different impacts for fitting and nonfitting workgroups. Table 17 reports the mean differences between conflicting contingency groups and non-conflicting contingency groups on communication effectiveness. For the 27 "fitting" groups, nine groups had conflicting contingencies and 18 did not. The mean score of open communication for conflicting contingency groups ($\underline{M}=5.77$, $\underline{s}=.55$) was significantly higher than the mean of non-conflicting groups ($\underline{M}=5.27$, $\underline{s}=.57$). [$t(25)=2.14$, $p < .05$, two-tailed]. Also, the mean score of mutual understanding of conflicting contingency groups ($\underline{M}=5.96$, $\underline{s}=.45$) was significantly higher than the mean of non-conflicting groups ($\underline{M}=5.32$, $\underline{s}=.50$). [$t(25)=3.23$, $p < .05$, two-tailed].

There were no differences in mean scores for either performance variables for conflicting contingency and non-conflicting groups among the fitting workgroups. Also, there were no differences between conflicting contingency groups and nonconflicting groups for the nonfitting workgroups. Thus, there do seem to be different patterns of results for fitting and nonfitting workgroups with respect to conflicting contingencies.

EFFECTS OF CONTINGENCY VARIABLES

Multiple regression was employed to identify the relative strengths of effects of the contingency factors on communication effectiveness. First, centralization was the only significant predictor of open communication of the four contingency variables. Centralization had the significant effect on the open communication, in both fitting workgroups ($R^2=.57$, $\beta =-.84$, $p< .05$), $F(1,25) = 11.83$, $p =.05$, and nonfitting workgroups ($R^2=.66$, $\beta =-.70$, $p< .05$), $F(1,45) = 34.81$. The sign of the regression coefficient was negative in both fitting and nonfitting groups.

Second, with respect to the level of mutual understanding, centralization was the only significant predictor of open communication in the “fitting” groups ($R^2=.52$, $\beta =-.72$, $p< .05$), $F(1,25) = 9.2$, $p =.05$. Again, the relationship was negative.

In the nonfitting groups, centralization ($\beta =-.49$, $p< .05$), formalization ($\beta =-.23$, $p< .05$), and closeness ($\beta =.31$, $p< .05$) were significant predictors of mutual understanding ($\beta =-.72$, $p< .05$), $R^2=.76$, $F(3,43) = 20.31$, $p =.05$.

Third, with respect to the level of members' perceived performance, no of

the variables was a significant predictor of the level of members' perceived performance in the fitting workgroups. However, in the nonfitting groups, centralization ($\beta = -.27$, $p < .05$) and group conformity ($\beta = -.33$, $p < .05$) were

TABLE 17

Mean Differences
between Conflicting Contingency Groups and Non-conflicting Contingency
Groups

Variable	Conflicting contingency groups		Non-conflicting contingency groups		t	df
	M	SD	M	SD		
Fitting groups	N=9		N=18			
Open Communication	5.77	.55	5.27	.57	2.14*	25
Mutual understanding	5.96	.46	5.32	.50	3.23*	25
Members' perceived performance	5.16	.58	5.40	.33	-1.35	25
Leaders' evaluation	5.26	1.06	5.53	.39	.71	13
Non-fitting groups	N=23		N=24			
Open Communication	4.84	.51	4.87	.91	-.15	45
Mutual understanding	5.07	.56	5.15	.65	-.46	45
Members' perceived performance	4.70	.51	4.87	.59	-1.00	45
Leaders' evaluation	4.95	1.03	4.51	.99	1.19	28

* $p < .05$

significant predictors of the level of members' perceived performance, $R^2=.41$, $F(2,44) = 6.99$, $p = .05$.

Fourth, with respect to the level of leaders' evaluation, none of the variables was a significant predictor of the level of leaders' evaluation in either the fitting workgroups and the nonfitting groups.

SUMMARY

In summary, this study tested a contingency model of group communication effectiveness of workgroups in Korean organizations. The study revealed that there were significant contingent relationships among organization structure, group relational climate, and communication practices. That is, the level of centralization and closeness among members requires an appropriate response of communication practices of a group. If a group has an appropriate response of communication practices, fit between contingency variable and response will be achieved.

Regarding the relationship between fit and performance, the results of this study supported hypothesis 1 and 2: the level of communication effectiveness and performance of workgroups which had communication practices which fit the requirements of organizational structure and group relational climate was higher than that of a group that had communication practices which did not fit the requirements of organizational structure and group relational climate.

With respect to conflicting contingencies, the results of this study did not

support Hypothesis 3. Groups with conflicting contingencies did not perform worse than those with consistent consistencies.

NOTES

1. A modification index (Sörbom 1989) may be computed for each fixed and constrained parameter in the model. Each such modification index measures how much chi-square is expected to decrease if this particular parameter is set free and the model is reestimated. Thus, the modification index is approximately equal to the difference in chi-square between two models in which one parameter is fixed or constrained in one model and free in the other, all other parameters being estimated in both models. The largest modification index shows the parameter that improves the fit most when set free.
2. In order to test the assumptions of multiple regression, the skewness and kurtosis of the data were examined. The No significant skewness-fallen into +3 to +3- and kurtosis-fallen into +3 to +3- was observed. Also, in order to test multicollinearity, collinearity Statistics was conducted. No significant collinearity statistics (VIF value above 4) were reported.

CHAPTER VI

CONCLUSION

The purpose of this study was to test a contingency model of group communication effectiveness in Korean organizations. Characteristics of organization structure and group relational climate were proposed as contingency variables and communication practices in terms of formal and informal meetings were identified as response variables. This study posited that if there was a “fit” between contingency variables and communication practices, the communication effectiveness of a group would be high

This chapter examines the implications of the results presented in Chapter V. First, it reviews and considers the implications of the major findings regarding the contingency model of group communication effectiveness. Second, it discusses the main findings regarding the characteristics of group communication in Korean organizations. Finally, we will conclude by considering some limitations of this study and identifying directions for future research.

CONTINGENCY MODEL

This purpose of this study was to examine whether a significant contingency pattern existed in Korean work groups, and whether the fit of a group’s communication to this pattern influenced the performance of the group. The contingency theory incorporated two sets of contingency variables, organization structure and group relational climate, and one set of response

variable, communication practices. This study posited that in order to meet the requirements from imposed by the contingency variables, a group must develop appropriate communication practices. If a group engages in appropriate communication practices, the group will achieve fit, and fit will lead to a high level of performance.

The overall results of the survey supported the contingency hypotheses. Results indicated that groups whose communication fit the demands of the group's internal and external context had significant higher levels of performance than the groups that did not fit.

Centralization was the most significant predictor of the frequency of formal meetings in both the fitting groups and nonfitting groups. The level of centralization had a significant positive relationship with frequency of formal meetings. It was contradicted by the first prediction made by this study. This study posited that if a group had a high level of centralizations, it had fewer formal meetings as previous studies predicted (Cohen et al., 1969). However, it is not clear yet whether a high level of centralization really lead to frequent formal meetings in Korean workgroups, since the mean score of centralizations of this study was relatively low compared to other mean scores. Or, there may another reason for frequent formal meetings in Korean workgroups. For instance, previous studies (e.g., Chen, 1995) indicate that during formal meetings in Korean organizations, subordinates report task progress, and the leader usually give the directions. Cho (2003) found that respondents indicated

that formal meetings were usually devoted not to make decisions, but to give the directions from top-managements. Thus, there may be another reason for frequent formal meetings in Korean workgroups, in addition to the level of centralizations.

While centralization led to frequent formal meetings, centralization had no influence on the frequency of informal meetings in either fitting or nonfitting workgroups. This finding complements the result of previous study of Cohen et al. (1969). Cohen et al. (1969) reached the conclusion that frequent intergroup communication was observed when the organizational structure was decentralized and when the internal communication among group members was centralized. The findings of this study partially support the idea that centralized group communication enhances communication outside the immediate work groups. Frequent informal meetings among members may be an alternative approach for a group with a highly centralized structure that can help compensate for shortcomings in the formal organization. Members can communicate unspoken issues or conflicts in an informal meeting that allows group members to share their inner thoughts that would not be communicated in a formal meeting.

With respect to formalization, there was a significant negative relationship with the frequency of formal meetings only for fitting workgroups. That is, if a group had a high level of formalization, frequent formal meetings were not observed among the groups that fit the contingency pattern. In a highly

formalized structure, members can make task-related decisions by relying on job descriptions or rules. In this case, frequent formal meetings are redundant and may make the group less effective in terms of communication effectiveness and task performance. The low performance of the nonfitting groups may be attributable to inappropriate use of formal meetings.

In addition, the level of formalization also had a significant negative relationship with the frequency of informal meetings in the fitting groups. In Cho's (2003) study, members indicated that they usually got their information through personal networking when they did not have enough information through official channels. Informal meetings were the most common place they could get this information. The results of this study were consistent with this observation about workgroups in Korean organizations. In Korean work groups, informal meetings are not only personal gatherings, but also offer alternative ways to supplement the weaknesses of formal structure.

However, among the nonfitting groups, there were no significant relationships between the level of formalization and the frequency of meetings. It can be inferred that these groups did not have an appropriate frequency of formal meetings to meet the requirements of formalized structure. They may either have redundant meetings that are not needed due to a high level of formalization, or not enough meetings despite a low level of formalization. In this case, members' communication effectiveness and performance level would be expected to be lower due to wasting time in ineffective meetings or,

conversely, a lack of information sharing. The findings of this study supported this: the level of communication effectiveness and performance in nonfitting groups were significantly lower than those of fitting groups.

The other contingency factor was group relational climate, as measured by the level of group conformity and closeness among group members. In addition to the requirements imposed by external organizational structure, a group has its own relational climate depending on the characteristics of members. Even though two groups may have similar conditions in terms of structure, two groups may have very different relational climates. Neglect of members' relational needs and reactions to one another can lead to hostility, frustration, and inefficiency. On the other hand, overemphasis on relationships may lead to a happy and intimate group, but can divert time and energy from the task. Thus, communication practices should respond appropriately to the relational needs of members.

The results indicated that the level of group conformity was not significantly related to formal and informal meetings in both fitting and nonfitting groups. Although members may have felt the pressure to conform, meetings were not stimulated by this pressure. It may also be the case that increasing the frequency of formal and informal meetings is not an appropriate response to meet the requirements of group conformity.

However, the level of closeness among members had a significant positive relationship with the frequency of informal meetings in the fitting groups. This

study posited that, if members have very close relationships with each other, they should voluntarily spend time together after office hours. The result of this study supported this prediction. In groups that respond appropriately to the contingencies, personal needs to maintain close relationships with other members are resolved through having additional informal meetings with members.

The premise of a contingency model is that fit will lead to the high level of performance. Thus, this study tested whether the observed fit of work groups in Korean organizations resulted in a high level of performance with respect to communication effectiveness and task performance.

The overall results of this study supported this hypothesis. The members of fitting groups reported a higher level of open communication and mutual understanding than those of nonfitting groups. The performance level of fitting groups, both in terms of members' perception of performance and leaders' evaluation of performance was higher than those of nonfitting groups.

The low level of performance of the nonfitting groups in this study was attributed to the fact that the groups did not have appropriate number of formal/or informal meetings that would enable them to respond to the requirements imposed by their structural context and relationships among members. If groups do not have formal meetings and there is a high level of centralization, members of the group may experience difficulties in decision-making and information sharing. On the contrary, if a group has frequent formal

meetings despite a low level of centralization, frequent meetings will result in inefficiency and waste of time.

In addition, if a group does not satisfy its members' needs for relationships in the appropriate manner, members are likely to experience conflicts or anxiety. If members value close relationships, appropriate communication practices allow members to build those relationships through frequent informal meetings. However, frequent informal meetings are redundant when group members value independence and individual activity.

This study has implications for practice in Korean groups. It implies that in order to be effective, a group should first identify which contingencies they face and then respond appropriately. Identifying contingent factors requires an understanding of the group and its context.

This study proposed two contingency variables: organization structure and group relational climate. Gladstein (1984) states "groups form a link between the individual and the organization" (p. 499). Thus, in order to be effective, groups should satisfy the needs of both the organization and individual members. In this study, the level of centralization and closeness emerged as the most significant contingency variables in Korean work groups.

In addition to fit, this study also explored the impacts of conflicting contingencies in Korean work groups. Groups often experience conflicting contingencies because of opposing or inconsistent requirements imposed by contingencies. Gresov (1989) found that fit and performance were related when

both contingencies required similar structures, but that when their requirements conflicted, the relationship broke down and units had lower performance, supporting the argument that conflicting contingencies lead to lower performance.

I hypothesized that fit and performance would be related when all contingencies required similar responses. However, when requirements conflicted, such as a low level of centralization and a high level of group conformity, groups would make erroneous responses. This study found that 32 work groups had conflicting contingencies of the requirements of centralization and group conformity. However, the findings of the study did not show a significant relationship between conflicting contingencies and level of performance. Somewhat surprising, workgroups with conflicting contingencies groups had a higher level of communication effectiveness than non-conflicting groups without conflicts, which runs in the opposite direction to the hypothesis. Thus, the findings of this study are not consistent with Gresov's (1989) study.

The contingency view attempts to describe the interrelationships within and among subsystems as well as between the organization and its environment in terms of patterns of relationships among variables (Kast & Rosenzweig, 1973). In this study, a contingency model of explained the interrelationship between group external and internal contexts and communication patterns in terms of response to the demands on context. A fitting response leads to effective performance. Support for the contingency model suggests that groups are

forming, changing, and adjusting their communication in response to structure and relationship patterns. There is no single best type of communication pattern in a group. To be productive, groups must strike an appropriate balance between attention to the demands of structure and attention to the relations among members.

In particular, by applying a contingency theory in a different cultural setting, Korea, it was possible to capture contingency patterns characterized Korean work groups. These patterns were different in some respects from those that might be expected for Western workgroups. The positive results of this study suggest that contingency theory has a cultural generalizability as long as it embraces cultural variability in specification of key variables and their relationships.

The ultimate goal of this study was to examine group communication effectiveness through a contingency framework. The following section will discuss the characteristics of group communication in Korean organizations based on the findings of this study.

GROUP COMMUNICATION EFFECTIVENESS OF WORK GROUPS IN KOREAN ORGANIZATIONS

General expectations concerning workgroups in Korean organizations were discussed in Chapter II. The findings of this study partially supported our initial assumptions about Korean workgroups. It was noted that Korean organizations in general have centralized organizational structures with relatively

low levels of formalization. However, the findings of this study revealed that centralization had the lowest mean score of all variables investigated. Further their level of formalization that members' perceived was relatively high on average, compared to the level of centralization.

Van de Ven and Ferry (1980) measured centralization in terms of the amount of discretion unit members exercise in making work-related decisions. The mean score of employee discretion from 152 workgroups that they found for U.S. organization was 3.43 ($s = .65$) on a five-point Likert scale. Even though we must careful in comparing this study and Van de Ven and Ferry's study, it is noteworthy and a little puzzling that the level of centralization of Korean workgroups is relative low compared to that in U. S. workgroups.

One line of reasoning is that the findings of this study may reflect current features of Korean organizations. Within the past decade, Korea has experienced tremendous changes in the whole society. In order to keep pace with the rapid changes in the global world, change in organizations and their structures is inevitable and Korean organizations may have changed in the past few years so that they are not as centralized as they were previous or as would be expected based on Korean culture. In addition, modern communication technologies may have brought about changes in Korean organizations that are not reflected in previous studies.

As Cho (2003) reported, centralized structure and top-down communication in Korean organizations are perceived by members to prevent

them from engaging free and open communication and to result in conflicts and unsatisfactory outcomes. Also, subjects reported that low levels of formalization led to erroneous decision-making in groups. In order to overcome these ineffective features of work groups, Korean work groups and organizations may put effort into changing toward more decentralized and formalized structures.

Centralization and closeness emerged as the most significant contingency variables in the model. This implies there is a more pressure for the group to respond to these variables than to the other two. Even though this study is not able to establish whether this pattern is a unique phenomenon in Korean work groups, this finding is interesting compared to the findings of the previous studies (Chang & Chang, 1994; Chang et al., 1997; Chen, 1995; Kim & Kim, 1989; Kim & Rowley, 2001). Until recently, centralized structure and close interpersonal relationships have been assumed to be common characteristics of most of all Korean organizations. Also, it is assumed that the cultural tendency of Koreans reflects and supports these phenomena.

However, this study revealed that there was variability with respect to these characteristics and that members of Korean groups are not tightly bound by cultural tendencies. Each group has its own variation regarding organization structure and interpersonal relationships with others. Based on each circumstance, the group should undertake different responses. For instance, centralized structure and frequent formal meetings are not universal characteristics of Korean work groups. If a group is located in an organization

with a decentralized structure, frequent formal meetings may create conflicts and inefficiency. Thus, this general assumption about Korean groups and organization should be reconsidered.

The study indicated that the level of closeness among group members was relatively higher than that of other variables while the level of centralization was the lower. Based on these findings, while work groups in Korean organizations have made significant changes in organization structures in order to overcome organizational barriers that inhibit effective task process, they still value and enjoy interpersonal relationships based on traditional values. This may be a unique feature of Korean organizations: maintaining their traditional values and pursuing effective task structure at the same time. This tendency was also observed in the conflicting contingencies in this study.

With respect to the conflicting contingencies, a low level of centralization and high level of group conformity (or vice versa) were observed in a number of groups. This aspect was expected to confront the groups with conflicting contingencies. However, the findings of this study did not support the expectation that conflicting contingencies will lead to a low level of performance. It is possible to infer that members will resolve these conflicts through both informal and formal meetings. For instance, in the case of a low level of centralization and a high level of group conformity, members might enjoy a high level of group cohesiveness through informal meetings, while members went about their own jobs independently in the workplace.

Living with conflicts may also be familiar to members of Korean workgroups (Chang, 1989; Chang & Choi, 1988). Koreans are independent and competitive in pursuing personal success through better education and promotion, but they are expected to be dedicated members of many social groups and organizations at the same time. As a result Koreans are likely to be accomplished at balancing these opposing demands.

LIMITATIONS

One limitation in this study stems from the first- time use of several of the instruments. This study utilized items from previous studies as much as possible and all items were drawn from scales that had high levels of reliability levels and evidence for validity. However, these scales should be used in future studies that sample different types of groups for their robustness to be assessed.

Second, there was a great deal of difficulty in obtaining groups for the study and this may have affected the results. Many organizations and individuals had to be contacted in order to find respondents who were willing to participate. In the initial stage of gathering samples, several workgroups rejected to participate in this study after they considered the topic of this study. In particular, leaders of the groups showed concern of comparing with other groups. Even though it was not explicitly stated, this implied that they might worry about the low level of performance in terms of members' perceptions. Those who did participate may be individuals who highly satisfied with their work groups. Also, given the topic of communication effectiveness and performance of the study,

participants may include a disproportionate number of people who enjoy communicating in groups.

IMPLICATIONS FOR FUTURE RESEARCH

Future research should first address the limitations discussed above. In particular, finding groups with a low level of satisfaction or high levels of conflicts may lead to additional insights.

Based on the findings of this study, future research should focus on determining if there are other contingent variables that impact of group communication effectiveness. As the findings of this study indicated, Korean organizations are undergoing significant changes in their external and internal environments. An in-depth investigation of Korean organization and groups as they undergo change in their environments would shed light on this. With respect to group communication, future research should extend the contingency framework beyond frequency of meetings to more general features of group communication, such as the decision-making process, types of group communication, and technology usage.

Cross-cultural study of contingency model will add to our knowledge of contingency theory and group communication effectiveness. This study found a contingent pattern for Korean work groups. Additional studies of the model in other cultures can help us determine whether this pattern is applicable in other cultural settings.

CONCLUSION

As in other studies from the contingency perspective, the central message of the findings of this study is that there is no single best solution to achieve communication effectiveness in workgroups. Rather, organizational structure and relational tendencies must be considered in light of the internal environment, which each group faces, and the predispositions of its members. As has been emphasized, no simple causal chain can be identified in this case; rather, the basic argument is that the entire system of factors must be considered. These are interrelated in a complex fashion to effective group communication and group performance.

Despite the need for future research, the results of this study provide a way of conceptualizing variables at the interface between a group and its contexts, which can be utilized by practicing managers to deal with the issues they face.

Leaders and members of a group should identify contingency variables and respond to the demands that these variables impose on them. Achieving communication effectiveness in Korean workgroups depends on members' efforts to try to fit their communicative response to the contingencies the group faces.

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APPENDIX A

(English version)

SURVEY

An examination of communication interactions in organizations
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The purpose of this survey is to get an understanding of communication interactions you have in your group or team. You will be asked to describe the characteristics of your group or team, communication activities, and communication effectiveness in your group or team depending on your personal experiences and opinions.

You have the right to skip any questions that you don't want to answer. If you don't want to participate this survey, you also have the right to stop participating at any time during the survey. All of your answers will be confidential. The results of this survey are used only for academic purpose. Only the primary and assistant researchers will use your questionnaire and your identity will not be associated with the data. There is no risk or benefit to you for participation in this study. About 200 individuals will participate in this survey.

If you have any questions regarding this study, please contact WoonYoung Cho, woonyoung@tamu.edu, 1-979-862-6958, or Kim, Mi-Sun, 02-2037-3749, misun@eklc.co.kr. You can get information on your rights as participation from the Institutional Review Board through Dr. Michael W. Buckley, Director of Support Service, Office of Vice President for Research at 1-979-458-4067.

After finished to answer the item, please mail the questionnaire to the assistant researcher, Kim, Mi-Sun, using the enclosed envelope for return.

. The following item will ask you to evaluate **general working processes in your team**. If you agree with the item, go to 7 on the scale, if you disagree with the item, go to 1 on the scale. If the item isn't your case, you can mark on N/A.

	Strongly Disagree					Strongly Agree		
1. Our team members take part in task decisions almost all the time, if the task is related to their jobs	1	2	3	4	5	6	7	N/A()
2. Our team members have a great deal of freedom in conducting our task activities	1	2	3	4	5	6	7	N/A()
3. Our supervisor is inclined to accept the opinions of the work group in important decisions about job-related matters	1	2	3	4	5	6	7	N/A()
4. Our team members are encouraged to make their own decisions	1	2	3	4	5	6	7	N/A()
5. There can be little action taken here until a supervisor approves a decision	1	2	3	4	5	6	7	N/A()
6. Even small matters have to be referred to someone higher up for a final answer	1	2	3	4	5	6	7	N/A()
7. Everybody here has an equal chance to have a say in the decisions which concern our job	1	2	3	4	5	6	7	N/A()
8. Whatever situation arises, we have procedures to follow in dealing with it	1	2	3	4	5	6	7	N/A()
9. Our team keeps a written record of everyone's job performance	1	2	3	4	5	6	7	N/A()
10. Rules and regulations of our team are somewhat vague and ambiguous	1	2	3	4	5	6	7	N/A()
11. Our team members are often confused about exactly what they are supposed to do	1	2	3	4	5	6	7	N/A()
12. We are to follow strict operating procedures at all times	1	2	3	4	5	6	7	N/A()

The following items will ask you to evaluate **interpersonal relationships among your team members**. If you agree with the item, go to 7 on the scale, if you disagree with the item, go to 1 on the scale. If the item isn't your case, you can mark N/A.

	Strongly disagree					Strongly agree		
1. We often spend time together after the office hour	1	2	3	4	5	6	7	N/A()
2. We willingly tell a great deal of my personal affairs, honestly and fully (in depth) to our group members	1	2	3	4	5	6	7	N/A()
3. We seldom interact-communicate with our group members	1	2	3	4	5	6	7	N/A()
4. We feel very close to our group members	1	2	3	4	5	6	7	N/A()
5. We rarely know the other members' private life	1	2	3	4	5	6	7	N/A()
6. We usually change individual opinions or behavior to fit into the team.	1	2	3	4	5	6	7	N/A()
7. Doing thing in a different way is valued in our team	1	2	3	4	5	6	7	N/A()
8. We usually sacrifice individual self-interest for the benefit of our team	1	2	3	4	5	6	7	N/A()
9. It is very important us to maintain team harmony for our team	1	2	3	4	5	6	7	N/A()
10. We feel uncomfortable going against the view of majority	1	2	3	4	5	6	7	N/A()

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|--------|
| 11. We tend to consider the whole team first, not the individual | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() |
| 12. We usually follow decisions the team made in spite of differences we have | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() |

The following items will ask you to evaluate **communication activities in your team**. If you agree with the item, go to 7 on the scale, if you disagree with the item, go to 1 on the scale. If the item isn't your case, you can mark N/A.

- | | |
|---|--------|
| 1. Our team have meetings related to its task _____ times in a day | N/A() |
| 2. Our team have meetings related to its task _____ times in a week | N/A() |
| 3. Our team have meetings related to its task _____ times in a month | N/A() |
| 4. Our team have informal meetings for team work after office hour _____ times in a week (or, _____ times in a month) | N/A() |
| 5. Our team have small group activities for social activities _____ times in a week (or, _____ times in a month) | N/A() |
| 6. Our team have informal meeting to celebrate personal events _____ times in a week (or, _____ times in a month) | N/A() |

The following items will ask you to evaluate **meetings your team have**. If you agree with the item, go to 7 on the scale, if you disagree with the item, go to 1 on the scale. If the item isn't your case, you can mark N/A.

- | | Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | Strongly agree | 7 | N/A() |
|---|-------------------|---|---|---|---|---|---|----------------|---|--------|
| 1. We have a great deal of freedom to express individual opinions as we like | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 2. We usually talk freely about what we think and feel | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 3. We generally feel free to ask for a raise | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 4. We often talk to each other about our personal problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 5. We are not afraid to disagree with our boss if we think he/she is wrong in a particular case | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 6. We are prepared to argue openly with people in higher positions | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 7. Our team leader listens very carefully to members' opinions | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 8. There are enough opportunities to discuss various ideas and opinions about overall task processes with supervisors | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 9. Our team has a climate in which diverse perspectives are valued. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 10. Most team members are honest and can be trusted | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 11. Most of my team members know each other very personally and understand each one's circumstance related to task and personal | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 12. Our team members here can be trusted to provided management with correct information about what they are doing | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |
| 13. Our team leader understands members job needs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | N/A() | | |

14. We do not really trust our team leader	1	2	3	4	5	6	7	N/A()
15. Our team leader does not really trust team members	1	2	3	4	5	6	7	
16. Our team members understand team members and who they really are	1	2	3	4	5	6	7	N/A()
17. We know what other members current tasks are pretty well	1	2	3	4	5	6	7	N/A()
18. We are willingly to help other members whenever the help is needed	1	2	3	4	5	6	7	N/A()
19. Whenever another member has some difficulties in the task, we can understand what the difficulties are	1	2	3	4	5	6	7	N/A()

The following items will ask you to evaluate **the degree of task achievement of your team**. If you agree with the item, go to 7 on the scale, if you disagree with the item, go to 1 on the scale. If the item isn't your case, you can mark N/A.

	Strongly disagree							Strongly agree
1. Our team usually 100% achieve assigned tasks in a week (or _____ %)	1	2	3	4	5	6	7	N/A()
2. Compared to other groups with similar work and objectives, our team perform tasks superiorly	1	2	3	4	5	6	7	N/A()
3. Compared to other groups with similar work and objectives, our team attain specific goals that have been set superiorly	1	2	3	4	5	6	7	N/A()

The following questions are about you and your organization. Please answer each item. Your answers are very important for statistical analysis and are strictly confidential.

- How long have you worked in this organization? _____ years
_____ months
- How long have you worked in this team? _____ years
_____ months
- How older were you on your last birthday? _____ Years old.
- Your sex _____ female _____ male
- Are you the leader of this team? _____ Yes _____ No
- Type of the company: _____ Education/consulting _____ IT
_____ Publishers _____ Research Institute
_____ Travel agency _____ Bank _____ Insurance
_____ Food _____ New Paper
_____ Fashion _____ etc
- Task of your team : _____ Marketing _____ Planning _____ Account &
Finance _____ Product management
_____ Education _____ Human Resource
_____ Customer Service _____ General management
_____ etc

Thanks for participation.

설문 조사

(Korean version)

조직 내에 커뮤니케이션 관련 활동에 관한 조사

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안녕하십니까? 저는 텍사스 A&M 대학교의 커뮤니케이션 학과의 박사과정을 공부하고 있는 조운영입니다. 본 설문은 본인의 박사 논문을 위한 자료수집을 위함입니다. 본 설문 조사의 목적은 귀하가 속해있는 팀의 커뮤니케이션 활동에 대한 전반적인 정보와 이해를 얻고자 합니다. 본 설문조사는 귀하가 속한 팀의 업무 진행, 커뮤니케이션 활동, 그리고 팀 구성원들과의 관계에 대한 기술적인 질문을 포함하고 있습니다. 각 항목을 읽어보신 후에 귀하의 경험과 의견을 바탕으로 근거하여 대답하여 주시기 바랍니다. 본 설문에는 정답도 오답도 없습니다.

본 설문의 결과는 오로지 학문적인 목적으로만 사용될 것이며, 귀하의 답변은 매우 유용한 자료로 활용되어질 것입니다. 본 설문의 모든 결과는 본 조사자만이 보게 될 것이며, 귀하의 어떠한 정보도 유출되지 않을 것임을 말씀드립니다. 설문 결과에 따른 어떠한 이익이나 (혹은 손해)도 없을 것입니다.

약 200명의 참가자들이 본 설문에 참여할 것이며, 소요시간은 약 20분 정도입니다. 혹 본 설문과 관련한 질문이 계시면 본 조사자에게 연락하여 주시기 바랍니다 (woonyoung@tamu.edu) 본 설문 조사는 텍사스 A&M 대학의 Institutional Review Board 승인을 받은 연구 활동임을 밝힙니다

참여해주셔서 감사합니다

다음 질문은 귀하가 속해있는 팀의 업무 진행에 관한 질문들입니다. 주어진 항목이 귀하의 경험이나 의견에 비추어 매우 그렇다고 생각하시면 '7'번, 전혀 그렇지 않다고 생각하시면 '1'번에 표시하여 주십시오. 주어진 항목이 귀하의 경우와 전혀 상관이 없는 경우는 '해당사항없음'에 표시하여 주십시오 (이하 질문에서의 "팀"은 귀하가 속해있는 가장 최소단위의 "팀"을 이야기합니다)

	1	2	3	4	5	6	7	
	전혀 그렇지 않다						매우 그렇다	
1. 우리 팀 구성원들은 대부분의 경우 자신의 일과 관련된 의사결정과정에 참여한다	1	2	3	4	5	6	7	해당사항없음 ()
2. 우리 팀 구성원들은 대부분의 경우 직무수행을 하는 데 있어서 상당한 재량권을 가지고 있다	1	2	3	4	5	6	7	해당사항없음 ()
3. 뭔가 중요한 일이 생기면 팀 리더는 의사결정을 내리기 전에 그 문제에 대한 팀 구성원들의 의견을 물어본다	1	2	3	4	5	6	7	해당사항없음 ()
4. 우리 팀에서는 직무 관련한 의사결정을 스스로 내리는 것이 바람직한 행동이다	1	2	3	4	5	6	7	해당사항없음 ()
5. 우리 팀은 팀 리더가 의사결정을 승인할 때까지는 거의 아무 일도 할 수가 없다	1	2	3	4	5	6	7	해당사항없음 ()
6. 우리 팀 구성원들은 각자의 일과 관련한 의사결정에 대해서 의견을 말할 수 있는 동등한 기회를 갖는다	1	2	3	4	5	6	7	해당사항없음 ()
7. 우리 팀은 업무와 관련하여 어떤 상황이 벌어지던, 그 상황에 어떻게 대처해야 하는지에 대한 일련의 절차들을 갖고있다	1	2	3	4	5	6	7	해당사항없음 ()
8. 우리 팀은 모든 사람의 직무 수행과 성취에 관한 서류를 보관하고 있다	1	2	3	4	5	6	7	해당사항없음 ()
9. 우리 팀이 해야 할 직무는 종종 명확하지 않을 때도 있다	1	2	3	4	5	6	7	해당사항없음 ()
10. 우리 팀이 가지고 있는 직무 관련 규칙과 법규는 좀 모호하고 애매하다	1	2	3	4	5	6	7	해당사항없음 ()
11. 우리 팀은 종종 우리가 정확히 뭘 해야 하는지에 대해 혼돈스러울 때가 있다	1	2	3	4	5	6	7	해당사항없음 ()
12. 우리 팀은 항상 직무 절차를 엄격히 따르고 있다	1	2	3	4	5	6	7	해당사항없음 ()

다음 질문은 귀하가 속해있는 팀의 구성원들과의 관계에 대한 질문입니다. 매우 그렇다고 생각하시면 '7'번, 전혀 그렇지 않다고 생각하시면 '1'번에 표시하여주십시오. 주어진 항목이 귀하의 경우와 전혀 상관이 없는 경우는 '해당사항없음'에 표시하여 주십시오.

	1	2	3	4	5	6	7	
	전혀 그렇지 않다						매우 그렇다	
1. 일과가 끝난 후에 우리 팀 구성원들은 자주 잘 모여서 시간을 함께 보낸다	1	2	3	4	5	6	7	해당사항없음 ()

2. 우리 팀 구성원들은 서로에게 개인적인 일들에 대해 솔직하고 깊이 있게 이야기 할 수 있다	1	2	3	4	5	6	7	해당사항없음()
3. 우리 팀 멤버들은 서로 거의 접촉이 없다	1	2	3	4	5	6	7	해당사항없음()
4. 우리 팀 구성원들은 서로에게 매우 친밀감을 느낀다	1	2	3	4	5	6	7	해당사항없음()
5. 우리 팀 구성원들은 구성원들의 개인적인 생활에 대해 전혀 알지 못하다	1	2	3	4	5	6	7	해당사항없음()
6. 우리 팀 내에서는 개인의 개성과 의견이 매우 존중된다	1	2	3	4	5	6	7	해당사항없음()
7. 우리 팀 구성원들은 팀 전체에 맞추기 위해 개인의 의견이나 행동을 바꾸기도 한다	1	2	3	4	5	6	7	해당사항없음()
8. 우리 팀 내의 화목을 유지하는 것은 우리 팀에게 매우 중요하다	1	2	3	4	5	6	7	해당사항없음()
9. 우리 팀 구성원들은 팀 내의 다른 멤버의 의견에 반대하는 것을 싫어한다	1	2	3	4	5	6	7	해당사항없음()
10. 우리 팀 구성원들은 규칙과 관습을 엄격하게 따르도록 기대된다	1	2	3	4	5	6	7	해당사항없음()
11. 우리 팀 내에서는 팀웍을 유지하기 위해 개인보다는 팀 전체를 먼저 고려하는 경향이 있다	1	2	3	4	5	6	7	해당사항없음()
12. 우리 팀 구성원들은 팀 내에서 결정된 일에 대해서는 개인적인 생각이 다르더라도 다 따르는 편이다	1	2	3	4	5	6	7	해당사항없음()

다음은 **귀하가 속한 팀의 회의**에 관한 질문입니다. 각 질문의 빈칸에 적절한 숫자를 적어주십시오. 주어진 항목이 귀하의 경우와 전혀 상관이 없는 경우는 '해당사항없음'에 표하여 주십시오.

1. 우리 팀은 업무 진행을 위해 하루에 평균 _____ 차례의 회의를 한다	해당사항없음()
2. 우리 팀은 업무 진행을 위해 일주일에 평균 _____ 차례의 회의를 한다	해당사항없음()
3. 우리 팀은 업무 진행을 위해 한달에 평균 _____ 차례의 회의를 한다	해당사항없음()
4. 우리 팀은 팀 단합을 위한 회식을 일주일에 _____ 회 정도 한다 (혹은 한달에 _____ 회 정도)	해당사항없음()
5. 우리 팀은 여가나 취미 활동을 같이 하기 위한 모임을 일주일에 _____ 회 정도 가지고 있다 (혹은 한달에 _____ 회)	해당사항없음()
6. 우리 팀은 팀 구성원들의 경조사를 챙기기 위한 모임을 일주일에 _____ 회 정도 가지고 있다 (혹은 한달에 _____ 회)	해당사항없음()

다음은 귀하가 속해있는 팀의 의사소통 활동에 관한 질문입니다. 매우 그렇다고 생각하시면 7, 전혀 그렇지 않다고 생각하시면 1번에 표시하여 주십시오. 주어진 항목이 귀하의 경우와 전혀 상관이 없는 경우는 '해당사항없음'에 표시하여 주십시오.

	전혀 그렇지 않다	1	2	3	4	5	6	7	매우 그렇다	
1. 우리 팀 구성원은 각자가 이야기하고 싶은 것은 마음대로 이야기할 수 있는 상당한 자유를 지니고 있다		1	2	3	4	5	6	7		해당사항없음()
2. 우리 팀 구성원은 각자가 어떻게 느끼고 있는지에 대해 대체로 솔직하게 이야기하는 편이다		1	2	3	4	5	6	7		해당사항없음()
3. 우리 팀 구성원은 질문이 있으면 대체로 자유롭게 물어보는 편이다		1	2	3	4	5	6	7		해당사항없음()
4. 우리 팀 구성원은 종종 우리의 개인적인 문제에 대해서 서로 이야기한다		1	2	3	4	5	6	7		해당사항없음()
5. 우리 팀 구성원은 특정문제에 대해 팀 리더가 틀렸다고 생각하면 두려워하지 않고 팀 리더의 의견에 반대한다		1	2	3	4	5	6	7		해당사항없음()
6. 우리 팀 구성원들은 팀 리더와 자유롭게 솔직하게 문제에 대해 토론할 수 있다.		1	2	3	4	5	6	7		해당사항없음()
7. 우리 팀 리더는 구성원들의 의견에 귀를 기울여 듣는다		1	2	3	4	5	6	7		해당사항없음()
8. 우리는 팀 리더와 전반적인 업무 진행에 대해 아이디어와 의견을 토론할 수 있는 충분한 기회를 가지고 있다		1	2	3	4	5	6	7		해당사항없음()
9. 우리 팀은 다양한 의견과 생각이 존중되는 분위기를 가지고 있다		1	2	3	4	5	6	7		해당사항없음()
10. 우리 팀 구성원들은 정직하고 신뢰할만하다		1	2	3	4	5	6	7		해당사항없음()
11. 우리 팀 구성원들은 서로 개인적으로 매우 잘 알고 개인적인 상황도 잘 이해하고 있다		1	2	3	4	5	6	7		해당사항없음()
12. 우리 팀 구성원들은 하고 있는 업무에 대해 신뢰할만한 정보를 제공한다		1	2	3	4	5	6	7		해당사항없음()
13. 우리 팀 리더는 구성원들의 직무상의 필요를 이해한다		1	2	3	4	5	6	7		해당사항없음()
14. 우리 팀 구성원들은 팀 리더를		1	2	3	4	5	6	7		해당사항없음()

절대적으로 신뢰한다

15. 우리 팀 리더는 팀 구성원들을
전혀 이해하지 못한다

1	2	3	4	5	6	7
---	---	---	---	---	---	---

해당사항없음()

16. 우리 팀 구성원들은 서로를 매우
잘 이해하고 서로를 잘 안다

1	2	3	4	5	6	7
---	---	---	---	---	---	---

해당사항없음()

17. 우리 팀 구성원들은 팀
구성원들의 업무 전반을 상당히 잘
알고있다

1	2	3	4	5	6	7
---	---	---	---	---	---	---

해당사항없음()

18. 우리 팀 구성원들은 언제든지
필요할 때면 기꺼이 서로 돕는다

1	2	3	4	5	6	7
---	---	---	---	---	---	---

해당사항없음()

19. 우리 팀 구성원들은 누군가가
업무수행에 어려움이 있으면, 어떤
어려움인지 상당히 잘 이해해준다

1	2	3	4	5	6	7
---	---	---	---	---	---	---

해당사항없음()

다음은 귀하가 속한 팀의 업무 성취도에 관한 질문입니다. 매우 그렇다고 생각하시면 7, 전혀 그렇지 않다고 생각하시면 1번에 표시하여 주시기 바랍니다. 주어진 항목이 귀하의 경우와 전혀 상관이 없는 경우는 '해당사항없음'에 표시하여 주십시오.

	전혀 그렇지 않다		매우 그렇다					
1. 우리 팀은 일주일 단위로 주어진 업무의 거의 100%를 성취해낸다 (혹은 ___% 정도)	1	2	3	4	5	6	7	해당사항없음()
2. 다른 팀과 비교해볼 때 우리 팀은 우월하게 시간에 맞추어 업무를 정확하게 해내는 편이다 (비슷한 업무와 목표를 가지고 있는)	1	2	3	4	5	6	7	해당사항없음()
3. 다른 팀과 비교해볼 때 우리 팀은 우월하게 부여된 세세한 업무목표를 성취하는 편이다 (비슷한 업무와 목표를 가지고 있는)	1	2	3	4	5	6	7	해당사항없음()

다음은 귀하와 귀하의 조직에 관한 간단한 질문입니다. 귀하의 답변은 정보분석에 매우 귀중한 자료로 활용될것입니다. 해당사항에 표해주시기 바랍니다.

성별:	여 _____	남 _____	
나이:	만 _____ 세		
팀 리더이다:	예 _____	아니오 _____	
현 조직에 근무하신 기간:	_____ 년	_____ 개월	
현 팀에 근무하신 기간:	_____ 년	_____ 개월	
현 회사의 유형 (회사명 _____)	교육 _____ 건설 _____ 도서, 출판 _____ 의료 _____ 법률 _____ 의약업 _____ 건축 _____ 영업 _____ 무역 _____	컨설팅 _____ 컴퓨터관련 _____ 여행관련 _____ 연구, 조사 _____ 금융 _____ 언론 _____ 패션 관련 _____ 영업관리 _____ 생산, 품질관리 _____	유통 _____ 보험 _____ 통신 _____ 식 음료 _____ 전자 _____ 웨딩 _____ 그 외 _____ 재무, 회계 _____ 구매 _____
현 팀의 업무: (팀의 이름 _____)	기획 _____ 고객관리 _____ 그 외 _____	연구 개발 _____ 총무 _____	인사, 교육 _____ 마케팅 _____
현 팀의 구성원 현 회사의 규모	_____ 명 50명 미만 _____ 150명-- 300명 _____ 1000명 이상 _____	50-100명 _____ 300명-500명 _____ 그 외 _____	100-150명 _____ 500-1000명 _____
본 설문과 관련한 질문이나 의견:			

귀하의 시간과 배려에 다시 한번 감사드립니다.
감사합니다.

APPENDIX B

INTRACLASS CORRELATION COEFFICIENTS FOR WORKGROUPS

Workgroup	Centralization	Formalization	Group conformity	Closeness	Open Communication	Mutual Understanding	Performance
1.	.74	.68	.48	.91	.94	.74	-1.1
2.	.36	.89	-1.8	.84	.55	.49	.80
3.	.88	-48.0	.94	-3.0	.96	-.59	
4.	.80	.87	-.52	.84	.64	.88	.83
5.	.49	.73	.58	.92	.71	.78	.95
6.	-3.0	-8.0	-8.0	.89		1.0	-3.0
7.	.00	-1.08	.96	.85		.50	.88
8.		.67	-.86	-2.0	.00	.00	
9.	.26	.61	-1.75	.67	-.44	.85	.63
10.	.44	.93	-3.0	1.0	.35	.43	1.0
11.	.46	.73	.55	.30	.45	-.96	.96
12.							
13.	.91	.67	-.07	.73	.95	.86	.72
14.	-1.67	.43	.40	.82	.84	.78	.96
15.							
16.	.40	.73	.79	.82	.87	.84	.91
17.	.77	.69	.57	.78	.31	.72	-2.0
18.		-.33			.92	.96	-3.0
19.	.31	.82	.70	.03	-.17	.59	.51
20.	-1.83	.58	.23	.89	.58	.68	.07
21.							
22.	.62	.40	.07	.87	.79	.77	.68
23.	.86	.33	.75	.88	.93	.71	.88
24.	.77	-.42	-1.6	.82	.95	.96	.15
25.	.81	.68	.03	.97	.84	.86	.15
26.	.87	.46	.12	.86	.65	.86	.87
27.	.80	.55	.00	.58	.65	.90	.58
28.	.90	.52	.57	.94	.96	.95	-5.6
29.	.78	.76	.88	.92	.96	.95	.95
30.	.89	.86	.20	.51	.90	.72	.66
31.							
32.	.87	.48	.75	-.14	.86	.80	.94
33.	.72	-.06	.49	.82	.87	.65	.98
34.	-.84	.83	.46	.50	.97	.09	.91
35.	.73	.76	.00	.27	.77	.37	.95

36.	.79	.92	.52	.59	.91	.80	.97
37.							
38.	.44	-.87	.89	.83	.80	.83	.64
39.	.50	.43	-3.4	.21	.76	.77	.86
40.	.26	-1.03	-3.6	.89	.81	.96	.98
41.	.90	.56	-1.3	.68	.91	.81	.87
42.	.49	.86	.52	.73	.80	.92	.67
43.	.88	.18	.55	.85	.38	.87	.94
44.	.94	.74	.77	.92	.93	.78	.96
45.	.63	-.21	.24	.88	.43	.74	.86
46.	-3.0		-42.00	.94	.37	.51	.52
47.	.78	.54	.74	.60	.50	.85	.16
48.	.74	.80	.05	.62	.79	.84	.63
49.	.23	.70	.15	.53	.84	.61	.89
50.	.89	.79	.49	.96	.34	.97	.80
51.	.77	.12	.47	.49	.96	.74	.00
52.	.80	-.86	.82	.77	.66	.95	.82
53.	.79	.00	.66	.88	.93	.98	.91
54.							
55.	1.0	.95	1.0	.93	.96	.96	-3.0
56.	.89	-1.1	.00	.59	.57	-1.0	.96
57.	-.67	.56	.21	.81	.89	.44	.72
58.							
59.	.87	.88	.94	.85	.80	.84	.96
60.							
61.							
62.	.35	.70	.56	.42	.95	.89	.92
63.	.68	.53	-.57	.96	.83	.62	-.13
64.	.98			.97	.96	.89	.89
65.							
66.	-.75			.75		.89	1.0
67.	.33	.74	.66	.68	.61	.80	.64
68.	.72	.84	.50	.86	.77	.84	.76
69.		.96	-.90	.96			1.0
70.	.99	.87	.89	.85	.85	.86	.46
71.	.00	.88	-1.0	-3.0	.95	.46	.43
72.	-3.2	-4.4	-3.0	.96	.96	1.0	
73.	.07	-5.7	.78	.96	.31	-.13	-12.0
74.	-.38	.00	1.00	.67	-1.3	.86	.86
75.	.64	.83	.58	.83	.98	.26	.43
76.	.78	1.0	.67	.78	.67	.87	.89
77.	.76	.92	-2.7	.94	.95	.98	.83

78.	.69	.37	.37	.34	.91	.83	.83
79.	.60	.89	.68	.58	.94	.84	.79
80.	.35	.84	.85	.87	.94	.94	.98
81.	.91	.87	.85	.94	.91	.89	.98
82.	.53	.92	.00	.64	.26	.90	.85
83.		.92	.89	.75	-8.0	1.0	.89
84.							
85.	.81	.48	.75	.64	.50	.82	.84

*ICC (2, k) two-way random effects average measure reliability¹

1. Two-way random effects model refers to that judges conceived as random, who rate n targets chosen at random form a pool of targets. Each model has two versions of the intra class correlation coefficients: single measure reliability and average measure reliability. Single measure reliability means that individual ratings constitute the unit of analysis. Average measure reliability means that the mean of all ratings is the unit of analysis. Because the unit of analysis of this study was a workgroup that were chosen at random, two-way random effects average measure reliability was conducted. In this case, if a group has no variance, ICCs cannot be computed.

APPENDIX C

MEAN SCORES (AND STANDARD DEVIATION) FOR THE VARIABLES

Workgroup	N of member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understand	Members' perceived performance	Leaders' evaluation
1.	4	2.69 (1.25)	4.06 (1.02)	4.59 (1.67)	4.00 (.89)	40	10	4.87 (.97)	5.0 (.78)	4.16 (.94)	
2.	5	2.25 (1.14)	3.15 (1.23)	3.67 (.78)	3.93 (.69)	4	4	4.95 (1.01)	4.85 (.84)	4.8 (.93)	
3.	2	2.5 (1.32)	2.62 (.97)	3.0 (1.60)	3.83 (.94)	8	4	5.75 (.95)	5.36 (.83)	5.0 (.66)	5
4.	4	4.19 (1.32)	2.18 (.79)	4.7 (1.11)	5.0 (.94)	4	4	4.5 (.80)	5.25 (.88)	4.25 (.76)	3
5.	10	3.83 (1.25)	3.93 (.87)	4.5 (1.23)	4.56 (.87)	10	8	4.63 (.85)	5.25 (.94)	5.17 (.66)	
6.	2	2.5 (.57)	2.38 (.75)	4.25 (1.94)	2.25 (.65)	4	8	5.25 (.67)	5.17 (.87)	4.84 (.63)	4.67
7.	3	1.67 (1.33)	3.56 (.89)	3.56 (1.41)	4.44 (.94)	2	4	6.5 (.85)	6.17 (1.03)	6.0 (.66)	
8.	3	2.5 (.89)	3.50 (1.14)	5.44 (.99)	6.68 (.81)	4	10	5.67 (.54)	6.17 (.87)	3.22 (.66)	
9.	7	2.71 (1.06)	4.89 (.77)	3.95 (.1.04)	4.95 (.95)	8	8	5.32 (1.16)	5.29 (.74)	4.76 (.66)	6
10.	3	3.25 (.95)	5.41 (.77)	4.56 (1.23)	4.83 (.65)	8	12	4.17 (.85)	5.22 (.87)	4.67 (.81)	6

Workgroup	N of member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understand	Members' perceived performance	Leaders' evaluation
11.	5	4.10 (1.41)	2.90 (.78)	3.80 (1.22)	4.33 (.78)	5	4	5.75 (.87)	5.58 (.80)	4.33 (.66)	6
12.											
13.	4	2.17 (.81)	4.68 (.87)	3.67 (.94)	5.25 (1.65)	4	12	5.75 (.85)	5.58 (.74)	5.42 (.60)	
14.	4	2.25 (1.50)	4.43 (.77)	3.42 (1.94)	4.83 (.65)	8	4	5.44 (.83)	5.56 (.80)	5.92 (.66)	
15.											
16.	7	2.71 (.78)	4.60 (.77)	3.86 (.94)	5.28 (1.65)	8	4	4.86 (.85)	5.43 (.77)	5.29 (.65)	
17.	3	2.91 (1.29)	4.44 (.96)	3.67 (1.34)	4.89 (.94)	10	8	5.42 (1.03)	5.58 (.85)	5.67 (.87)	
18.	2	2.75 (.69)	5.0 (.68)	4.25 (1.34)	4.33 (.85)	4	8	6.0 (.85)	5.0 (.84)	5.17 (.63)	5.33
19.	6	3.08 (1.16)	5.5 (.68)	3.78 (.98)	5.44 (.54)	4	4	5.33 (.65)	5.21 (.87)	5.06 (.66)	
20.	4	2.31 (.87)	4.25 (1.27)	3.5 (.74)	6.0 (1.34)	4	4	6.0 (.87)	6.0 (.98)	4.83 (.87)	3

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understand	Members' perceived performance	Leaders' evaluation
21.											
22.	8	2.28 (.92)	4.09 (.97)	3.29 (.94)	5.54 (1.05)	8	4	6.25 (.95)	5.94 (.86)	5.54 (.66)	5.67
23.	4	3.31 (1.63)	4.06 (.85)	3.83 (.94)	3.91 (.67)	15	4	4.81 (.64)	4.31 (.83)	4.42 (.76)	
24.	5	3.35 (1.03)	3.47 (.94)	3.67 (.1.02)	4.47 (.57)	8	4	4.4 (.77)	4.70 (.68)	4.67 (.64)	3.67
25.	4	3.43 (1.25)	3.31 (.83)	3.83 (.95)	3.50 (83)	6	4	4.69 (.85)	4.25 (.86)	4.5 (.62)	
26.	7	3.0 (.76)	4.28 (1.03)	4.04 (1.21)	3.90 (.98)	10	4	4.5 (.78)	4.86 (.78)	5.24 (.89)	4.67
27.	6	2.79 (1.48)	4.38 (.88)	4.83 (1.55)	4.22 (.94)	4	4	4.62 (1.25)	5.04 (.97)	4.75 (.72)	5.67
28.	6	3.25 (.87)	4.43 (1.27)	4.22 (.74)	4.0 (1.34)	8	8	4.83 (.87)	4.83 (.98)	4.83 (.87)	6.67
29.	6	2.79 (.83)	4.12 (.87)	4.05 (1.34)	4.67 (.75)	20	0	4.67 (.85)	5.33 (.87)	4.5 (.66)	
30.	8	3.62 (1.41)	4.0 (.77)	4.54 (.94)	4.25 (1.65)	2	12	4.38 (.85)	4.75 (.87)	4.79 (.66)	

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understand	Members' perceived performance	Leaders' evaluation
31.											
32.	8	2.65 (.92)	4.03 (.87)	4.37 (1.94)	4.79 (1.05)	12	4	5.31 (.75)	5.21 (.67)	5.00 (.67)	
33.	6	3.62 (1.48)	4.0 (.88)	4.44 (1.55)	4.61 (.94)	20	8	3.96 (1.25)	4.91 (.97)	5.100 (.72)	
34.	4	4.56 (1.67)	2.75 (.74)	4.75 (.85)	3.0 (1.65)	1	0	2.81 (.85)	3.81 (.77)	4.08 (.94)	4.00
35.	4	1.87 (1.20)	4.68 (.95)	4.25 (.92)	5.17 (1.65)	5	4	5.69 (.85)	6.13 (.87)	5.08 (.56)	
36.	6	3.58 (1.94)	3.20 (.71)	4.28 (1.04)	5.22 (1.65)	20	4	4.91 (.85)	5.21 (.87)	5.39 (1.66)	
37.											
38.	5	3.15 (1.48)	3.90 (.88)	4.47 (1.55)	4.33 (.94)	4	4	4.95 (1.25)	5.20 (.97)	5.47 (.72)	5.33
39.	3	2.33 (1.24)	3.41 (1.04)	4.44 (.98)	5.44 (.84)	4	4	5.33 (.96)	5.22 (.85)	4.83 (1.07)	4.00
40.	4	2.25 (1.09)	4.81 (1.34)	4.58 (.87)	6.38 (1.25)	8	8	6.38 (.95)	6.08 (.98)	5.58 (.87)	5.00
41.	5	2.45 (1.30)	4.85 (.77)	5.06 (1.73)	5.40 (1.65)	4	4	4.0 (.85)	5.2 (.87)	5.67 (.56)	

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understanding	Members' perceived performance	Leaders' evaluation
42.	7	2.96 (.92)	5.03 (.87)	4.57 (1.94)	5.38 (1.05)	2	8	5.39 (.75)	5.86 (.67)	5.24 (.67)	
43.	8	2.40 (1.20)	4.47 (.95)	4.95 (.92)	5.95 (1.65)	30	8	5.28 (.85)	6.01 (.87)	5.42 (.56)	6.67
44.	13	2.96 (1.59)	3.44 (.78)	4.51 (.54)	4.82 (1.45)	12	8	5.10 (.85)	5.33 (.84)	5.54 (.89)	5.33
45.	4	2.75 (.83)	3.68 (.95)	4.16 (1.04)	4.25 (1.63)	4	12	5.0 (.95)	5.31 (.87)	4.83 (.94)	6.00
46.	3	2.67 (2.87)	4.67 (1.22)	3.11 (1.15)	6.11 (1.05)	2	4	4.25 (.65)	5.42 (.84)	4.78 (.65)	5.67
47.	8	1.68 (1.32)	4.22 (.70)	4.79 (1.03)	4.79 (.96)	5	8	6.56 (.65)	6.63 (.85)	5.75 (.78)	4.00
48.	6	2.67 (3.28)	3.37 (1.12)	4.05 (1.91)	5.55 (.65)	4	4	5.38 (.77)	5.42 (.55)	4.17 (.66)	3.67
49.	4	2.18 (1.22)	4.0 (1.11)	4.16 (1.65)	4.5 (.94)	3	4	5.94 (.57)	5.88 (.83)	5.08 (.84)	3.67

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understand	Members' perceived performance	Leaders' evaluation
50.	3	2.08 (2.08)	4.25 (1.14)	3.89 (1.38)	4.33 (.68)	10	8	5.75 (.67)	5.67 (.75)	5.78 (.66)	
51.	3	2.75 (1.70)	4.75 (1.25)	4.78 (.94)	4.78 (.57)	3	4	5.58 (.85)	4.75 (.87)	5.33 (.85)	6.00
52.	5	2.7 (1.34)	4.1 (1.10)	3.6 (1.60)	5.13 (1.65)	35	4	5.60 (.66)	4.75 (.87)	5.36 (.64)	
53.	4	3.68 (1.48)	4.25 (1.23)	4.43 (.94)	4.92 (1.65)	10	4	4.75 (.85)	4.56 (.81)	4.5 (.56)	4.00
54.											
55.	2	2.5 (1.52)	4.86 (.77)	4.0 (1.65)	5.0 (.66)	5	4	4.5 (.85)	5.5 (.87)	5.0 (.75)	5.67
56.	3	3.41 (.95)	2.92 (.94)	4.43 (1.48)	3.89 (.88)	15	4	5.08 (.85)	6.0 (.66)	4.89 (.81)	3.67
57.	3	2.08 (1.01)	3.33 (.87)	4.11 (.94)	4.78 (1.65)	8	0	5.25 (.85)	5.5 (.87)	5.11 (.65)	
58.											
59.	4	3.50 (1.25)	3.50 (.77)	4.0 (.94)	5.25 (1.65)	8	0	5.06 (.85)	5.56 (.83)	4.67 (.86)	
60.											
61.											

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understanding	Members' perceived performance	Leaders' evaluation
62.	4	3.69 (2.30)	3.50 (.87)	3.75 (1.01)	4.41 (.77)	10	4	4.75 (.74)	4.25 (.80)	5.0 (.87)	3.33
63.	4	2.25 (1.64)	4.75 (1.77)	3.58 (.94)	4.17 (1.65)	4	4	5.31 (.85)	5.69 (.85)	5.92 (.77)	5.00
64.	2	3.75 (1.52)	3.5 (1.66)	3.88 (1.24)	4.83 (1.05)	4	0	4.25 (.63)	5.5 (.87)	5.25 (.66)	5.67
65.	3	2.58 (1.25)	4.75 (.67)	4.67 (1.23)	5.11 (.82)	3	4	4.83 (.93)	5.17 (.84)	5.44 (1.02)	6.00
66.	2	2.33 (1.73)	3.87 (1.11)	4.67 (1.65)	5.5 (.87)	15	8	6.34 (.85)	6.5 (.94)	3.83 (.75)	3.33
67.	4	2.37 (1.34)	5.08 (1.23)	4.50 (1.01)	4.83 (.83)	2	4	4.33 (.57)	5.13 (.96)	4.17 (.67)	5.33
68.	3	2.08 (1.15)	3.50 (.95)	4.43 (1.44)	2.67 (1.06)	2	8	5.5 (.82)	6.11 (.85)	4.33 (.88)	5.33
69.	4	2.56 (1.52)	5.69 (.85)	3.58 (1.21)	4.67 (.85)	8	8	5.94 (.81)	5.69 (.78)	5.67 (.84)	6.00
70.	3	2.42 (.81)	5.0 (.78)	4.0 (1.57)	4.56 (.92)	25	8	5.5 (.85)	5.33 (.87)	5.89 (.97)	

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understanding	Members' perceived performance	Leaders' evaluation
71.	5	2.8 (1.24)	4.35 (1.04)	4.46 (.98)	3.8 (.84)	4	0	4.13 (.96)	4.13 (.85)	5.5 (1.07)	
72.											5.00
73.	2	3.67 (1.25)	2.75 (.97)	3.88 (1.07)	3.0 (.94)	3	0	4.5 (1.01)	4.75 (.76)	4.5 (.97)	5.33
74.	5	2.60 (1.48)	4.20 (.88)	5.53 (1.55)	5.93 (.94)	7	10	5.95 (1.25)	6.0 (.97)	5.27 (.72)	
75.	4	3.50 (1.32)	3.69 (.76)	3.67 (1.32)	2.67 (.94)	4	0	3.81 (1.20)	3.69 (.85)	5.08 (1.01)	5.00
76.	2	2.88 (1.52)	2.25 (1.08)	4.5 (1.37)	2.25 (.94)	7	0	5.88 (.87)	6.0 (.85)	5.5 (.87)	5.00
77.	3	2.91 (1.29)	2.91 (.96)	4.75 (1.34)	4.0 (.94)	7	0	4.25 (1.03)	4.5 (.85)	4.78 (.87)	5.33

Workgroup	N of workgroup member	Centralization	Formalization	Group conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual Understanding	Members' perceived performance	Leaders' evaluation
78.	9	2.83 (.54)	4.67 (.85)	4.37 (.87)	4.48 (.66)	1	0	5.23 (.65)	5.47 (.83)	5.67 (.1.31)	
79.	5	3.5 (1.01)	4.63 (.88)	4.33 (1.04)	3.60 (.79)	4	4	3.70 (1.04)	4.3 (.85)	4.56 (.87)	
80.	5	2.60 (.97)	5.15 (.95)	4.67 (.94)	4.6 (1.65)	12	4	5.30 (1.14)	5.15 (.87)	4.73 (.66)	4.67
81.	3	4.58 (1.15)	3.78 (.77)	4.83 (.94)	2.89 (1.65)	4	4	3.33 (.92)	3.50 (.95)	3.17 (.94)	
82.	5	3.25 (1.09)	4.19 (1.34)	3.87 (.87)	4.6 (1.25)	15	4	5.05 (.95)	5.55 (.98)	4.87 (.87)	4.67
83.	2	2.75 (.87)	3.12 (1.27)	4.75 (.74)	4.50 (1.34)	10	4	4.75 (.87)	5.0 (.98)	5.25 (.87)	4.67
84.											
85.	7	2.35 (.92)	3.46 (.87)	4.23 (1.94)	4.95 (1.05)	8	4	5.39 (.75)	5.39 (.67)	5.11 (.67)	5.00

Work group	Centralization	Formalization	Group Conformity	Closeness	Formal meeting	Informal meeting	Open Communication	Mutual understanding	Members' perceived performance	Leaders' evaluation
79	H	H	H	L	L	H	L	L	L	
80	L	H	H	L	H	H	H	H	L	L
81	H	L	H	L	L	H	L	L	L	
82	H	H	L	H	H	H	H	H	L	L
83	H	L	H	L	H	H	L	L	H	L
84										
85	L	L	L	H	H	H	H	H	H	H

APPENDIX E

GROUPS' CATEGORIES INDICATING FITTING AND NONFITTING

	Category	Fit	Contingency prediction supported	Conflicting contingency
1.	Nonfitting	N	Y	Y
2.	Nonfitting	N	Y	
3.	Nonfitting	N	N	
4.	Nonfitting	N	Y	
5.	Nonfitting	N	Y	
6.	Nonfitting	N	Y	Y
7.	Nonfitting	N	Y	
8.	Nonfitting	N	N	Y
9.	Fitting	Y	Y	
10.	Nonfitting	N	Y	
11.	Nonfitting	N	N	Y
12.				
13.	Nonfitting	N	N	
14.	Fitting	Y	Y	
15.				
16.	Fitting	Y	Y	
17.	Fitting	Y	Y	Y
18.	Nonfitting	N	N	
19.	Nonfitting	N	N	Y
20.	Nonfitting	N	N	
21.				
22.	Fitting	Y	Y	
23.	Nonfitting	N	Y	Y

	Category	Fit	Contingency prediction supported	Conflicting contingency
24.	Nonfitting	N	Y	Y
25.	Nonfitting	N	Y	Y
26.	Nonfitting	N	Y	Y
27.	Nonfitting	N	Y	
28.	Nonfitting	N	Y	Y
29.	Nonfitting	N	Y	Y
30.	Nonfitting	N	Y	
31.				
32.	Fitting	Y	Y	Y
33.	Nonfitting	N	Y	
34.	Nonfitting	N	Y	
35.	Fitting	Y	Y	Y
36.	Fitting	Y	N	
37.				
38.	Nonfitting	N	N	
39.	Nonfitting	N	Y	Y
40.	Fitting	Y	Y	Y
41.	Nonfitting	N	Y	Y
42.	Fitting	Y	Y	
43.	Fitting	Y	Y	Y
44.	Fitting	Y	Y	
45.	Nonfitting	N	Y	Y
46.	Nonfitting	N	N	
47.	Fitting	Y	Y	Y
48.	Nonfitting	N	N	

	Category	Fit	Contingency prediction supported	Conflicting contingency
49.	Nonfitting	N	N	
50.	Fitting	Y	Y	
51.	Fitting	Y	Y	
52.	Fitting	Y	Y	
53.	Nonfitting	N	Y	
54.				
55.	Fitting	Y	Y	
56.	Nonfitting	N	Y	
57.	Nonfitting	N	N	
58.				
59.	Nonfitting	N	Y	Y
60.				
61.				
62.	Nonfitting	N	Y	Y
63.	Nonfitting	N	N	
64.	Nonfitting	N	N	Y
65.				
66.	Nonfitting	N	Y	Y
67.	Fitting	Y	Y	Y
68.	Nonfitting	N	N	Y
69.	Fitting	Y	Y	
70.	Fitting	Y	N	
71.	Nonfitting	N	N	Y
72.	Fitting	Y	Y	Y
73.	Nonfitting	N	Y	Y

	Category	Fit	Contingency prediction supported	Conflicting contingency
74.	Nonfitting	N	N	Y
75.	Fitting	Y	Y	
76.	Fitting	Y	Y	
77.	Fitting	Y	N	
78.	Fitting	Y	Y	
79.	Nonfitting	N	Y	
80.	Nonfitting	N	N	Y
81.	Nonfitting	N	Y	
82.	Fitting	Y	Y	Y
83.	Nonfitting	N	Y	
84.				
85.	Fitting	Y	Y	

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